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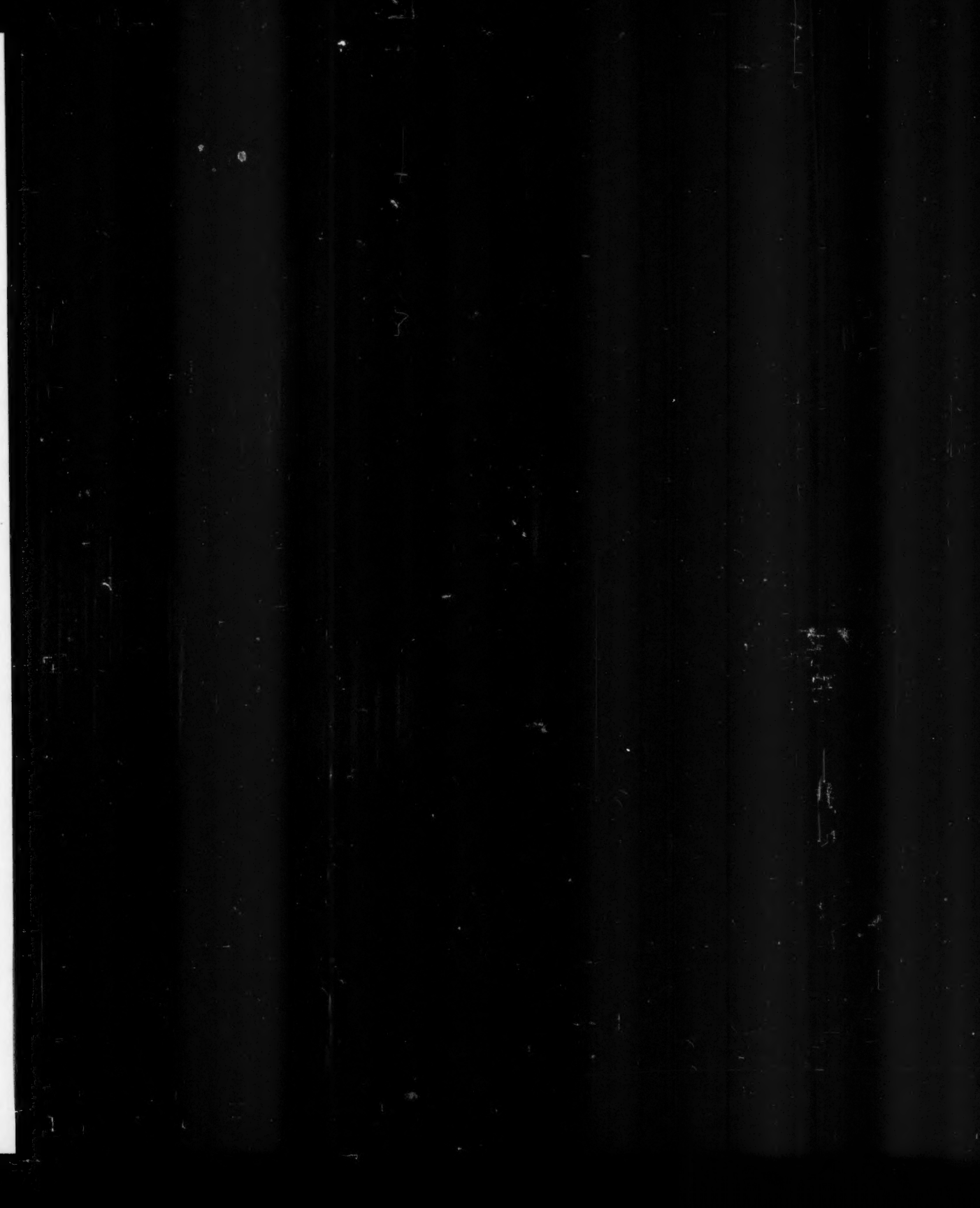

The AMERICAN SOCIETY of ARCHITECTURAL HISTORIANS

founded 1940

Aims:

1. To provide a useful forum and to facilitate enjoyable contacts for all those whose special interest is the History of Architecture.
2. To foster an appreciation and understanding of the great buildings and architects of historic cultures.
3. To encourage research in architectural history, and to aid in disseminating the results of such research.
4. To promote the preservation of significant architectural monuments.

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THE NEW HISTORY OF ARCHITECTURE

by Carroll L. V. Meeks

The profession of architecture is in a critical situation. War demands efficiency and speed, and has no time to coddle artistic temperaments. The old-fashioned architect, trained for a different, gentler world, now gone, finds himself unable to meet the demands of the fiercer new one. The architect of the future must function as an efficient planner. The professional schools must turn out a new article, and some have already begun to revise their curricula to train their students for this important role. The emergency gives them a new incentive to do so.

The specific aspect of this problem which concerns me is this: Can a streamlined professional course in architecture afford to devote one tenth of its total effort to the history of architecture, or has the time come to drop this subject? There are many answers to this question, some reactionary, some visionary. A long-range view may help to clarify the issues involved. We should be able, given sufficient perspective, to isolate the constants and hence suggest some practical solutions. Why have people ever studied the buildings of others? How did they study and what did their studies emphasize? What were the consequences of their studies?

The lake dwellers were not much concerned with architecture, as such. There were no records to study; to travel would have shown them nothing new. We may conclude that at a marginal level of existence, which does not permit refinement in building, to give time to the history of architecture is anti-social.

By the time Iktinos exercised his subtle talents on the Parthenon, the situation had changed considerably. Specialists were encouraged to practice architecture. Through study of existing buildings, travel, and reading, they learned the traditional principles; technique came from apprenticeship. This was the case in other ancient societies, such as that of the Egyptians. A very high level of aesthetic and technical skill resulted although the rate of change was slow.

Vitruvius struck a different note. He derived rules from historical studies. Roman architects tried to meet new conditions with old methods, or by new methods to achieve old effects. Their studies hindered as well as helped them.

The medieval architect, like Villard de Honnecourt, travelled, made notes, used what he could from the past, modifying and adapting forms and methods as necessity demanded. Each element of his marvellously complex edifices is linked to all that had gone before; yet, the whole is more varied, more responsive to local conditions than any that had preceded it. The past nourished but did not confine them.

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Alberti and Del'Orme studied the past too--but with a different purpose. They scorned the traditions of the Middle Ages, by which they were surrounded, and revered antiquity. They read and re-edited Vitruvius. They checked his rules against the ancient ruins and saw in them the means to a more monumental classicism than their fathers had aspired to. That their idolatry was tempered, we can see from their works which cannot be confused with those of antiquity. Their scholarship broadened their vocabulary, enabled them to stretch the limits of their medium, but did not prevent them from satisfying Renaissance requirements.

Gradually, historicism became more and more confining, until in the eighteenth century it strangled its devotees. Instead of preparing original designs, the young French architects at Rome were encouraged to reconstruct ancient buildings; the road ahead apparently led back.

The guidance, which tradition might have afforded those who had to cope with the new problems of the nineteenth century, was lost to all but a few, such as Gandy and Soane, who found principles there. The majority turned to copying the past, and the history of architecture was studied as never before. It was as if the architectural books of the nineteenth century were volumes of a set called "How to Make Something New Out of Old Bits." It is regrettable that the century which pursued the history of architecture with unprecedented ferocity was also incapable of understanding it. The new mechanized presses produced well-illustrated but uncritical books; engravings and photographs multiplied like paramecia. Too much of the creative energy of the century was diverted from construction to publication.

Toward the end of the century, critical scholarship replaced the earlier, more romantic approach. Men like Geymuller devoted their lives to establishing historical facts without attaching any significance to their findings. This kind of intellectual irresponsibility is still alive and is to blame for making the history of architecture anathema to some today.

More recently, crusaders for a new architecture, such as Bruno Taut, demanded a table rase, crying that history was the enemy of progress. The schools yielded to this pressure, shortened the time spent on history, increased the proportion allotted to recent developments, but continued to give the same stylistic kind of history as before.

In recent years the volume of publications on the architecture of the past has slackened, while an increasing amount of contemporary material has taken its place. The bulk of this is uncritically illustrative or propagandist, like the work of Le Corbusier. Books have even appeared on themes as superficial as "how to obliterate the past," or "how to make the new look novel." Happily, there were individuals such as Sullivan, who avoided these extremes and sought to establish enduring architectural principles based on a careful analysis of history.

This is the position at present. There is available to those who will trouble to seek it out a new technique for dealing with the history of architecture. Mumford, Hamlin, and Giedion, for example, make their historical researches an indispensible tool

for dealing with contemporary problems. The new method is being adopted slowly because most of the standard handbooks, which of course do not follow it, are obsolete. Consequently much arduous, creative effort must be put forth by the individual teacher who ventures to adopt it.

What then is this new kind of architectural history? Let us begin by showing what it is not. It does not regard the past as a grabbag of motives and tricks for use in practice as the revivalists and eclectics thought. Reconstructions and restorations should be done by archeologists. The architects who thought of themselves as archeologists are a dying race; they have found to their sorrow that one can't design a Cape Cod hangar. Neither does the new history of architecture lay down rules for good taste (like an Emily Post). Nor is it a cult worshiping eternal and infallible gods, as the academicians believed. It is no more a science than any other history.

It is, rather, a frankly subjective, analytic system based on scholarship and brought to life by creative imagination. It demonstrates how buildings and cities are conditioned by a series of specific milieus, each with its own moral, social, and technical values, each different from every other. In so doing, it must consider the talent available and the intellectual and aesthetic ambient operative in each case. At the same time, it traces the status of the builder--his duties, education, obstacles and opportunities, and the degree to which he is a free agent. An analysis of this kind does much to put contemporary problems into sharper focus.

For instance, too many practicing architects today are in dispair at the competition they are facing from the engineer. Eclectic architects foolishly paid little attention to building techniques. Only since the nineteenth century have engineers been permitted to excel the architect in this field. Ancient and Renaissance masters were deeply concerned with techniques. Architects practicing today should be grateful for being forcefully ejected from the recently assumed role of custom tailor to the rich. The architect's proper and venerable role is that of planner, of being able to plan better than anyone else any building or anyareas of the earth's surface as needed by his contemporaries, as San Gallo and Wren could and did.

If the modern architect really knew the history of his profession, he would not be so troubled by the shifting of emphasis from permanence to maintenance, and from emotional to practical values; he would be aware of these trends and of their previous oscillations. He would not feel that art can never be great again. His training would have shown him the fallacy in such idealizations. The few superlative buildings in history are linked not by absolute qualities, but because, relative to the conditions of the time, the conditions have been integrated supremely well. This indicates that there are no proper standards for our age but our own.

Furthermore, the architect would realize that our difficulties are largely due to an inheritance of individualism, handed on from pioneer days, with awful architectural consequences, temporarily blinding us to the norm of group consciousness to which we are slowly returning. He would gain courage from the conviction that none of our problems are basically new, that they have been faced before under more hopeless circumstances, and since our opportunities are matched at this moment by the potentialities of our techniques, that the road ahead is in reality wider and more inviting than has ever been the case before.

For the professional student, the new method, which is the extension of the individual's experience beyond the scope of a single lifetime, the essence of the experience of ninety generations, will be a powerful incentive to greater creative effort. The impulse to renewal comes from the recognition of the limitations of what has been, just as the recent revolt from eclecticism and its pitiful potpourris was due to the realization that in the more remote past far better work was done.

When the calls for something brand new were most strident, it was an almost unobserved contradiction that those who did the calling were avidly studying the work of their contemporaries whose work, as soon as completed, became part of the past. In the interests of consistency they should never have looked at a magazine and should have worn opaque glasses whenever they went outdoors. The value of studying contemporary work is generally encouraged today; by adding the experiences of the great past, the possibilities are enormously increased. It is also necessary to recognize that, given the limitations of man and materials, the number of these possibilities is not infinite.

Should the student have occasion to do individual research in the history of architecture, his use of the new technique would have beneficial effects on his method of work. Research into the conditioning factors of the project under consideration would become second nature to him.

Apart from such socially desirable results, there are other more individual ones which should not be overlooked. These are an increase in the individual's sensitivity to form and line. A great architecture is impossible unless the architect and his patrons have this capacity developed to a high degree. The delicious, if partly frivolous, pleasures of connoisseurship may be mentioned. Recognizing the sources of some eclectic building of awful majesty is an enjoyable, though perhaps unkind, game.

So complex are the ramifications of this study, following the new technique, that it is no longer possible in a limited time to study numerous examples of each of the styles; instead, a rigid selection must be made with the emphasis placed on the recreation of the problem and not upon the multiplicity of variants. From such a study the broad general principles of significant architecture emerge.

Such a study is so radically different from the usual history of architecture and from its conventional aims that it should be called by a different name, perhaps "Training in the Evolution of Architecture."

If it be admitted that the new kind of training in the evolution of architecture is an important part of anyone's culture, then it is clear that, far from being abandoned today, this training might well be incorporated into curricula other than the purely professional ones. It is a more complete study of the evolution of a whole civilization than many of its sister humanities. The value of art in general in this connection is becoming widely recognized, but at the present stage in the world's history, which is a group-minded one, architecture is particularly significant since, unlike literature or painting, it is totally dependent on the group for its existence. The value of the humanities as a whole is not questioned by even the most philistine, who knows that they are not of primary importance in earning money, but recognizes them as indispensible in making existence supportable. As a cultural study for the layman as well as the professional, this one has some

unique features which make it valuable in any kind of educatien. What an opportunity it gives for integrating political and social movements, literary and musical achievements, in one coordinated course, centered on material evidence--the buildings themselves!

In relation to the study of history, buildings are far superior to treaties and battles since they are still in existence and can be seen by any student for himself, and grasped and remembered far more easily than the written or spoken word.

The student can be made to observe things for himself and thus develop his visual awareness and discrimination. Too little is done along this line in secondary schools to keep alive the child's natural curiosity and purity of vision. This kind of architecture might do it.

I have tried to suggest what can be accomplished for the architect, the student, and the layman, and,so, for the future of our kind of civilized society, if the architectural historian will meet today's critical problems by a courageous and fundamental revision of his methods; in the firm belief that if this is done, by so much will be help to steady the tottering equilibrium of our world.

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AN UNSUSPECTED SOURCE FOR ARCHITECTURAL HISTORY

The conscientious historian of architecture soon discovers that all phases of human activity provide grist for his mill. To the melange of source material already deluging our members, the Christian Science Monitor recently added another series of monuments that chirps for classification, analysis, and interpretation. An inspired and lyric Monitor feature writer suggests that ancient aviaries constitute more than a series of ornamental curios and collectors' items, and that, because these works of art, both large and small, were executed by master craftsmen in the form of contemporary dwellings, they should be utilized to trace the architectural evolution of diverse lands and civilizations. As soon as times are more propitious, we are thinking of organizing an Expedition for the Recovery of Suspended Bird Cages. Perhaps we will begin in Boston.

ETRUSCAN DOORS AND WINDOWS

by George M. A. Hanfmann

The relation of doors and windows to the wall is a fundamental architectural problem. Size, number, and placing of the openings are determined to an essential degree by environment and climate, but shape and proportion are a decisive factor in the artistic effect of a building. Even a moderately initiated layman can distinguish a Romanesque, Gothic, or Renaissance structure by the form of its doors and windows rather than by its total effect. These styles show full awareness of the artistic significance of such elements. According to many historians of architecture, however, antiquity regarded openings in the wall, and particularly windows, as a necessary evil rather than as asset, at least prior to the invention of glass windows. This judgment has been somewhat modified by the more thorough knowledge of ancient architecture which we owe to recent excavations. It is true that windows played a relatively small part in the sacral structures of Greece(1), but domestic and utilitarian structures made greater use of windows than has sometimes been admitted(2). The characteristic forms of Greek doors and windows are based on the rectangle and the oblong. Rounded forms appear in city gates of the fifth century B.C.(3). But not until the late Hellenistic period was an attempt made by the Greeks to achieve a facade, in which round-headed or arched doors or windows were employed through-

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(1) The pedimental window, seen in the Geometric temple(?) models was occasionally revived in Classical and Hellenistic structures (Robertson, p.120,157; Demangel, pp.232 ff.) Real windows, particularly in the external walls are are (Robertson, p.51. Erechtheum,pp.37 ff., fig.29, pls. 4,10,13,17; Asclepieum Epidaurus: Herbig,F.,p.7 f). The use of windows in the pediments of Greek temples has been recently investigated by Mrs. Bluma L. Trell of Hunter College. In a paper read before the Meeting of the Archaeological Institute at Hartford, Mrs. Trell has shown conclusively that several Greek temples of Asia Minor had one or three rectangular windows in their pedimental spaces.

(2) Geometric models (VIII B.C.) Payne, pp.34 ff., figs. 6 ff. Classical houses: Rbbinson and Graham,pp.263 ff; Robinson,p.249 f; Chipiez,pp.1033 ff; Mau,pp.2180 ff; Herbig,F; Herbig,It.p.272 f., 298 f., 302.

(3) F. Noack, Die Baukunst des Altertums, Berlin, w.d., pp.97 f.,pl.129. City gate of Priene: 300 B.C. Arch at the entrance to the Agora, Priene, Robertson, p. 190, fig. 85. II B.C.

George M. A. Hanfmann, instructor in the history of art and in classical archaeology at Harvard University, is especially interested in the Etruscans. His beautifully illustrated survey of Etruscan development and art in the Bulletin of the Rhode Island School of Design has been most favorably received.

out(4).

The situation was different in the Near East. Rounded gates and doors appear very early, possibly in the fourth millennium B.C. The small house-models from the archaic Ishtar Temple in Assur (2,800 B.C.) show a clear, rhythmic use of windows; each of the four bays which constitute the facade has a high oblong window topped by a smaller triangular opening. In one of the models the smaller upper windows appear to have a rounded form (5). In a relief of Assur-Nasir-Pal (883-859 B.C.), two round-headed windows are shown above the arched gate of a fortress (in Armenia?)(6). Similarly, on a relief from Beisan a sequence of three round-headedwindows appears in the background (7). Arched or rounded gates were certainly known in the second millennium B.C. throughout the Near East, and survived in the first millennium B.C. in the tombs of Phrygia(8). The popularity of rounded forms in the Near East, and their absence from early Greece have a bearing on the following discussion of round-headed doors and windows in Etruria. According to the best ancient tradition, the Etruscans came to Italy from Asia Minor in the ninth or eighth century B.C. If we find the Etruscans using the rounded doors and windows in Italy as early as 700 B.C., there is a possibility that these forms represent a Near Eastern trait imported by the Etruscans.

The contention that the Etruscans were using a type of facade which involved a round-headed door flanked by two similar windows, is based on the following material: Tomba della Cassetta (Fig. 1) and Tomb Group L, Tumulus II, Caere(9); Tomb No. 13 and Tomb No: 16, Bieda(10)--all prob-

(4) The supporting terrace of the Agora in Alinda has a sequence of arched doors. Anderson-Dinsmoor, pp.176 f., fig.77. One could hardly regard the arched window in the Ecclesiasterion of Priene (200 B.C. Robertson, pp.176 ff.,pl.7)as more than an experiment.

(5) Andrae, Ischtartempel, pp.34 ff., fig. 6, pl.15, a-b. Schafer-Andrae, pl.461, 1. For arched doors in houses of early third millennium B.C.: H. Frankfort, OIC.XVII, 1934, pp. 10 ff., figs. 5,7, 10,about 2,000 B.C.; cf. C.L. Woolley, Ur of the Chaldees, N.Y., 1930, pl. 12; Paribeni, figs. 209 (Ur), 258, 2500-2100 B.C.; R.F.S. Starr, Nuzi, Cambridge, Mass., 1939, pp.46 f., 195, figs. 29,31, pl. 26. Some of these have true arches. Rectangular windows were more frequent. For a window and a terracotta grill of the third millennium B.C., Cf. H. Frankfort OIC. XVII, 1934, p.14, figs. 6,9. Cf. also figs. 13, 24 and frontispiece.

(6) E. A. Wallis Budge, Assyrian Sculptures in the British Museum, London, 1914, pl. 13, 1.

(7) Pijoan II, fig. 422. VIII B.C. ?

(8) Hittite: Paribeni, figs. 264 and 266. Phrygian Tombs: Perrot-Chipiez V, figs. 79,82,98,102,123. H. H. von der Osten, OIC.VIII, 1930, p. 36, fig. 27.

(9) Mengarelli, p. 167, pl.46, a. Id., Studi Etruschi XI, 1937, p.85, pl. 7,2. I am indebted to Mr. Bainbridge Bunting for the drawings of Figs. 1-3.

(10) Gargana and Romanelli, NSc. 1932, pp. 496 f., fig. 14. 500 f., figs. 18-20

ably of the first half of the sixth century. The forms and the position of the door and windows in these three tombs are so similar that they may have been planned by one architect. The Tomba della Cassetta consists of a vestibule with small side chambers; a large chamber with beds on the long sides; and a small chamber in the rear. The tombs in Bieda consist of two oblong chambers arranged on the long axis. All three are rock-cut tombs. The unit of rounded door and windows appears in the wall between the vestibule and the main chamber in Tomba della Cassetta, and in the wall separating the two chambers in the tombs in Bieda. The recessed lunettes in Tomba della Cassetta may have been intended to imitate wooden fillings. The Tomb No. 13, Bieda, shows a clear opening through the whole height of the window. The gate-form with a "filled" head or tympanum had been recognized by Noack in some of the Hellenistic gates of Etruria(11). He tentatively derived this type from Sicily, but we see now that round-headed doors and windows were known in Etruria some three hundred years earlier. In addition to the three tombs just described, we know of some twenty other instances of rounded doors in the Etruscan tombs of Caere, Veii, and San Giuliano(12). All date from the archaic period (VII-VI B.C.), the earliest being the "Tomb with the Thatched Roof" in Caere(13). Round-headed windows flanking an "eared" door are found in the Tomba del Cornice, Caere(14).

Most of these doors and windows are rock-cut, but the same forms were used in masonry construction. We have proof of this in the Campana Tomb in Veii (625-600 B.C.). In the doorway leading from the entrance corridor (dromos) into the main chamber, the outer door is rock-cut, but the inner door forms part of a masonry wall. The door frame consists of horizontal corbelled blocks and a key-stone. The rounded form of the opening is obtained by cutting of the inner surfaces of the jamb-block and of the key-stone(15). In another tomb at Veii, only part of one jamb is constructed of tufa blocks, the rest of the frame is rock-cut(16). Some Etruscan houses found in Veii (VII B.C.) were also partly rock-cut and partly built of tufa blocks(17).

(11) Noack, pp. 198 f.; Cf. the gate shown on an Etruscan urn of the second century B.C. Durm, p. 17, fig. 15 a.

(12) 675-650 B.C. Mengarelli, pl. 23 b.

(13) Akerstrom, p. 16; Canina, pp. 202 f., pls. 66,68,70,101; Mengarelli, pls. 26,49 b,50; NSc. 1929, p.325, fig. 3; ibid., 1924, pp.205 ff., fig. 21 (Vignanello); Gargana, ML., pl. 25, 43. In some Hellenistic tombs of Norchia, a round-headed window seems to be placed within an "eared" door. They prove that the rounded window survived in post-archaic times in Etruria. Rosi, pp. 57,59, fig. 55,pl.8,4.

(14) Mengarelli, p. 168. Throughout the article, I am making use of notes and sketches made on a trip through the Etruscan cemeteries. Rectangular doors and windows were also used in Etruria from the earliest times. For later Etruscan windows influenced by Greek models, cf. Herbig, G.

(15) Durm, p. 28, fig. 21; Anderson-Ashby, p. 2; Canina, pls. 34 f.

(16) NSc. 1929, p. 327, fig. 3.

(17) Stefani, p. 379. In Caere: R. Mengarelli, La citta di Caere, Atti del IV Congresso Nazionale di Studi Romani, 1938, p. 8.

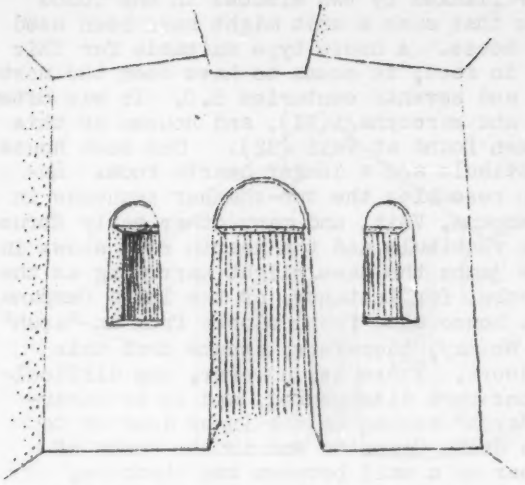

FIG 1 - TOMBA DELLA CASSETTA - CAERE

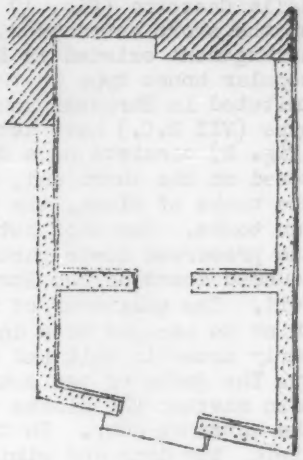

FIG 2 - VEII - ARCHAIC ETRUSCAN HOUSE - RECONSTRUCTED PLAN

We must conceive the prototypes of the doors and arches in the tombs of Caere and Bieda as built in this primitive corbelled technique which does not yet involve the comprehension of the true arch. The famous "true" arches and vaults of Etruria are all later than 400 B.C. and must be regarded as imitations of Greek models of the fourth century and the Hellenistic period(18).

The frames of round-headed doors and windows were sometimes adorned with moldings. In the Tomba della Nave, Caere, a triple unbroken roundel enframes the opening of the door(19), and a profile is carved on the jamb of a house door in Veii(20).

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(18) The "Grotto of Pythagoras" in Cortona is not a segmental vault, but shows comprehension of balanced thrust. The doorway is rectangular and is surmounted by a round tympanum placed over a monolithic architrave. A monolithic arch appears in the rear of this tomb. Durm, pp. 70 f., figs. 23,63; Ducati, A.E., p. 73, pl. 20, 68-9. The structure is usually dated in the fifth century B.C. On later Etruscan city gates and vaulted tombs cf. Campelli, pp. 12 ff.; and D. Levi, NSc. 1933, pp. 18 f. It is possible that forms approximating the true arch and vault were used in Etruria and Rome in the late sixth and the fifth century B.C. Ducati, Roma, pp. 13 f.

(19) Mengarelli, pl. 50. On a hut urn, possibly of pre-Etruscan date, the outline of the door is repeated by three moldings. Chipiez, p. 1035, fig. 2934.

(20) Stefani, fig. 3.

The arrangement of the door flanked by two windows in the Tomba della Cassetta (Fig. 1) suggests that such a unit might have been used on the short entrance side of a house. A house type suitable for this arrangement existed in Etruria; in fact, it seems to have been the most popular house type in the sixth and seventh centuries B.C. It was often imitated in Etruscan house urns and sarcophagi(21), and houses of this type (VII B.C.) have actually been found at Veii (22). One such house (Fig. 2) consists of a small vestibule and a longer hearth room. Entered on the short end, the plan resembles the two-chamber sequence in the tombs of Bieda, the Tomba Campana, Veii, and many other early Etruscan tombs. The door between the vestibule and the hearth room shows in the preserved lower parts of the jambs the same slight narrowing as the rounded doors of the Etruscan tombs, for instance, of the Tomba Campana, Veii. The excavator of the Veii house also found blocks from an "arch" which he assigns to a doorway. We may, therefore, assume that this early house in Veii had arched doors. There is, however, one difficulty. The jambs of the entrance door have disappeared, and it is uncertain whether the blocks of the "arch" belong to the inner door or to the entrance door. In the Tomba della Cassetta and in the tombs of Bieda, the door and windows appear on a wall between two chambers, not on the facade. Should we restore the house in Veii with a windowless facade and two windows in the inner wall? One possible solution is that the vestibule was open in some way or was shaped like a porch (23). The windows of the inner wall would then supply light and air to the inner room (24).

In the second solution (Fig. 3), we regard the inner walls of the tombs in Bieda and Caere as imitations of facades. It is not difficult to see why the windows do not appear on facades in the tombs of Caere and Veii which are approached by narrow subterranean corridors. If the

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(21) Andren, pp. XXV ff.

(22) Stefani, pp. 379 ff., figs, 2-3.

(23) Patroni argues that the Etruscan house represents a development from the primitive Italic hut in which a porch was added to the original hut. There is no evidence for columns in Etruscan architecture before 600 B.C. The column was a Greek feature which was first used in Etruscan temples, and then penetrated into tombs, funeral aediculae, and perhaps also houses. Andren lists five representations of buildings with columns (Nos. 14, 32, 40-41, 47), but only two belong to the sixth century, and all may be intended as representations of temples. For funerary aediculae: cf. Minto, pp. 107 ff., fig. 2; Bianchi-Bandinelli, pp. 69 f., fig. 40. The "portico tombs" of S. Giuliano and the two-storied colonnade of the Tomba Lattanzi in Norchia belong to a later period (350-100 B.C.). Gargana, ML., pp. 407 ff; Rose, pp. 37 ff., fig. 34.

(24) Gargana (Hist., pp. 232 f.) and Herbig (It., p.270) have assumed that the main chamber of a house received air and light from above and that the windows were intended to supply air and light to the smaller room. But Gargana admits that this cannot be true of the house type with the pitched roof which the tombs of Caere and Bieda reflect. A small window may sometimes have been placed above the door: Waites, pp. 124; Herbig, It., 287 f., fig. 38.

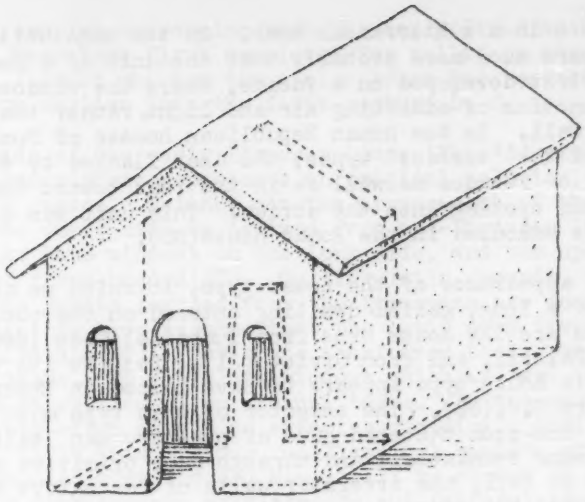

FIG 3 RECONSTRUCTED ARCHAIC ETRUSCAN HOUSE TYPE

corridor were widened to permit representation of a house facade, a great deal of labor would have to be spent without any return in space usable for burials. In other regions of Etruria vertical surfaces of rocks were carved to resemble facades; here a faithful representation of windows might have assisted tomb-robbers(25). The evidence for the use of the rounded doorway in the facade is more abundant; in addition to some twenty archaic tombs(26) the Etruscan house urn in Florence shows an arched entrance on the short side(27). If I am not mistaken, rounded doors are also shown on the short side of some cippi in house-form found at Caere(28).

A door flanked by two windows is so frequent in archaic Etruscan tombs that this unit must reflect an actual feature of domestic architecture(29). Windows are a functional feature of a house, but only an

(25). The tomb facades reproduced by Gargana, ML., p. 343, fig. 20, p. 356, pl. 21,34, look as if false windows might have been intended.

(26) Cf. note 13; Giglioli, pl. 95,2.

(27) R. Mengarelli, Studi Etruschi XI, 1938, pp. 90 ff., fig. 5. The urn is late (III-II B.C.) but it seems to represent atraditional Etruscan type enriched with some Hellenistic innovations such as the balustrade. Robertson, pl.23,b. Giglioli, pl. 96,2.

(28) Mengarelli, Studi Etruschi XI, 1938,pp. 90 ff., fig. 5.

(29) Tomba dei Capitelli,Tomba degli Scudi e Sedie, and Tomba dei Animali Dipinti, all in Caere: Patroni, St.p. 54, fig. 5; Mengarelli, pl. 49, c. Alsium: Canina, pl. 40,9. S. Giuliano: Gargana, ML., pp. 339 f., fig. 13. Herbig also refers to the Hellenistic Tomba degli Scudi in Tarquinia.

ornamental feature in a subterranean tomb. On the same utilitarian grounds, it appears much more probably that the unit of a door flanked by windows was first developed on a facade, where the windows serve their primary function of admitting air and light, rather than on an inner partition wall. In the Roman Republican houses of Pompeii, both of the atrium and the "terrace" types, the door flanked by two (or four) windows is found on facades as well as in the rear toward the garden, or inside in rooms opening into the atrium. This unit was a part of the Etruscan heritage embodied in the Roman house(30).

The general appearance of the house type, to which we assigned this facade is that of a long, gabled dwelling entered on the short end. Its earliest examples are the house urns from Tomba del Duce (680 B.C.), Vetulonia, from Falerii, and from Orvieto(31). Despite its unpretentious nature, this house type appears to have lasted in Etruria until the second century B.C.(32). The ancestor of this type must probably be sought in the one-room thatched huts of pre-Etruscan Italians which we know through some foundations and through many primitive hut urns(33). But in the house in Veii, the irregular walls of the native hut are straightened out and the space is amplified by the addition of a vestibule, just as in the Etruscan house models the walls are straight and a gabled roof replaces the thatched saddle roof of the huts. The early Etruscan two-room house is not the atrium house which later became the standard type for Roman suburban and country dwellings(34). The atrium house, too, may have developed from the primitive hut, but a distinctive feature in its plan is the addition of small rooms on the sides and at the rear of a larger room which was originally almost as wide as it was long. In an early, formative stage, some atrium houses may have been entered on the long (broad) side rather than on the short, as was our Etruscan type(35). The characteristic division of the rear into three rooms in an atrium house would seem to represent a stage of development which is later than the simple sequence of two rooms in the early Etruscan house. The tripartite division in the atrium house is considered by many scholars to be a Near Eastern feature(36). The atrium house

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(30) Herbig, It., p. 264, figs. 1-4; Lehmann-Hartleben, pp.214 f.,pl.21.

(31) Ducati, A.E., pp. 140 f.,pl. 44; Pinza, pp. 618 ff., figs. 189,b-c; Andren, pp. XXV ff; Rosi, pp. 33 ff; Gargana, Hist. Pinza saw in it an Aegean type.

(32) The urn in Florence dates from this period. Some of the houses found in Vetulonia (IV-I B.C.) may belong to this type. NSc.1898, pp. 81 ff. Nos. 8 and 10.

(33) Messerschmidt, pl. 9. For Italic hut urns cf. Bryan and Sundwall.

(34) Patroni, St., pp. 54 ff., fig. 6; Gargana, Hist., pp. 217 ff; Lake, pp. 598 ff.

(35) Robertson, p. 304, fig. 127. Compare the tentative reconstructions of the plan by Choisy in Gargana, Hist., fig. 15., and by Oelmann in RM. XXXVIII, 1923-4, pp. 214 f., fig. 5.

(36) Boethius, pp. 161 f; Gjerstad, pp. 159 ff; V. Muller, pp. 160, 167 ff., pl. 1. In Etruscan tombs, the division of the rear in three chambers appears between 600 B.C. and 450 B.C.

makes a more complex impression than the early Etruscan two-room house and may well have been first developed for villas or mansions of rich landowners. I doubt whether the atrium house had reached its fully developed form earlier than the fifth century B. C.

The facade of the early Etruscan house (Fig. 3) with its round-headed door and windows represents an original solution, so far unparalleled in Greece. Neither can the arrangement of the door and the windows on the short side be derived from pre-Etruscan Italian huts, for these huts have windows on the long side, and the openings are rectangular, not round-headed(37). On linguistic grounds, one might even argue that the Romans learned from the Etruscans how to make windows; for some linguists have assumed that the Latin word "fenestra" is of Etruscan derivation(38). But quite apart from their possible historical significance, the doors and windows which we have described are important as expression of an unusual taste. In the mysterious light of a tomb, they often attain an effect surprisingly similar to the Romanesque. It is this strange, un-Classical quality of Etruscan subterranean mausolea that induced Mengarelli to remark of a tomb at Caere: "This tomb appears as a strange but faithful reproduction of a small Romanesque church." Such similarity may be accidental, or it may reflect a similar attitude toward similar architectural problems in both the early Etruscan and the Romanesque. Such a question can be answered only after a general investigation of Etruscan survivals and revivals. But we may safely say that these early Etruscan experiments with round-headed doors and windows manifest an early an early interest in Italy for the possibilities of arcuated forms, an interest that was later fully realized in Roman art, and, through Roman heritage, transmitted to the Early Christian and the Italian Romanesque.

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(37) Chipiez, fig. 2934; Pinza, pl. 18,17; Bryan, p. 108, Nos. 24 and 52. It is not quite certain that both of these hut urns are pre-Etruscan.

(38) G. Herbig, Indogermanische Forschungen, XXXVII, 1916-7, pp.173 ff.

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THE ROLE OF COLOR IN ARCHITECTURE

by Donald N. Wilber

The recent great fairs at New York and San Francisco were to have enlightened the country as to the current achievements of the sciences and the arts and to have suggested important developments for the future. Architecture dominated the scene: the exposition buildings set the general atmosphere in addition to housing the exhibits themselves. The keynote was color flaunted on wall surfaces and touching up details. Did this color have a valid architectonic function? Did the countless examples of colorful decoration reveal any principle of ornament as related to modern architecture, or any treatment which might enliven the general monotone of skyscrapers and other modern monumental partis?

Color at the New York Fair was exuberant and gay. The pavilions so decorated were nearly all assymetrical in plan and elevation; since they were not reminiscent of established and familiar types, color could be used without denying memory pictures of common architectural terms in monotone. But the color used had a minimum relation to structure, to style and to scale. Indeed, the techniques so brilliantly experimented with on temporary structures seem to develop no theory of color enhancement that could serve as a partial answer to the perplexing problem--what decoration for our modern architecture? Modern work seems unique in finding no logical place for ornament and color in architecture. Once the skyscraper had passed through its Romanesque, Gothic, and Renaissance phases, futile efforts were made to graft a new synthetic ornament to the structure, to add a second coating to the masonry coating of the steel. For a number of years after 1925, the Paris Exposition of Decorative Arts inspired patterns of lush tropical foliage rendered in a carved wood technique, which were immediately spread over such diverse objects d'art as the largest structures of New York and the plushiest bedroom suites of Grand Rapids.

True, color had its brief day. The American Radiator building was given dramatic forcefulness by a black shaft with gilded pinnacles. Most successful was the Western Union building in New York where the brick exterior walls were graduated in value and hue from dark brown at the base through shades of red and orange to an almost pure white at the top. But this challenging experiment evoked little response. Both ornament and color were abandoned with the results exemplified in the buildings of Rockefeller Center where the powerful effect created by this dramatically upthrust mass is, in great part, nullified by a general dreary drabness of tone.

For several years following his graduate study in Architecture at Princeton University, Donald N. Wilber served on archaeological expeditions in Egypt, the Near East, and especially with Dr. Arthur Upham Pope in Iran. Since his return, he has lectured at the Iranian Institute, New York City, on Mesopotamian, Iranian, and Islamic architecture, and has been an indefatigable director of the Color Slide Cooperative, with headquarters at Princeton.

Every great historic period has employed ornament as an integral part of its architectural style. Will our period prove to be an exception? Or will we see the evolution of an architectonic ornament? With color so vital a part of all aspects of modern life, and with unparalleled technical resources at hand, architecture may have to come to terms with color. By tracing briefly the historic role of color in architectural ornament, it will be possible to set forth a few basic principles valid for past and present alike.

Color has played a prominent part in the architecture of many lands and periods. Historical examples run a wide gamut to include Egypt, Assyria, Minoan Crete, Greece, Maya, Spain and Mexico, Persia, India, China and medieval Italy. Most of these countries lie either in the Mediterranean area or in the prolongation of these latitudes. The logical explanation is climatic; strong sunlight tends to absorb color so that in hot countries vivid surfaces appear quite subdued.

In regions of dull days and overcast skies, brightly colored areas may seem overpowerful in relation to their natural setting. Thus, in western Europe in the centuries after the medieval period, color on the exterior of buildings has tended to be rejected. In temperate regions, therefore, color reaches its fullest development in interior decoration. Thus, we can contrast the multi-toned marble facades of the Italian churches with the interior painting and stained glass of the French cathedrals. Or we might cite recent investigations of our own Colonial architecture, which reveal that interiors, far from being consistently white, as has long been thought, were in fact painted in an extensive palette of rich colors.

In any period, we can be sure that color may have been a feature of either internal or external decoration, or both. Moreover, both might have polychromatic treatment differing from each other in technical origin and aesthetic approach. The closest balance and most complete cohesion between exterior and interior color decoration has occurred in those historic periods in which enclosed, constructed space is not isolated from exterior space--that is, where the boundary between out-of-door space and architectural space is most loosely drawn, as in Minoan palaces, Greek temples, and Islamic mosques.

Once the fact is admitted that polychromatic architecture is more highly developed in a limited geographical zone, several pertinent questions arise. Aside from the effect of strong light on brilliant tones, what is the fundamental relationship between climate and color? Is the hot, romantic, exotic Near East the natural homeland of color? Is there a rational relationship between color and the real or fancied emotional attitude of the East? Is the color of this region a concomitant part of its alleged non-representational spirit? Only a single fact is clear: the Near East shows an ageless feeling for color, a feeling which at times lies dormant, but which revives in a consistent cycle to a greater splendor.

The use of color as architectural decoration is subject to certain general limitations. It is either of a permanent nature, as in glazed tiles or the actual hues of natural materials, or it is impermanent, as in painted surfaces. The two techniques produce markedly dissimilar effects. Secondly, the colors used in architecture were never, until relatively modern times, freely selected by the artisan, but were dictated by the material at hand or by cultural restrictions. For example, the colors of enameled surfaces depend upon the available glazing ores.

Colors are frequently dictated by ritual custom and habit. Patterns transferred to architecture from the minor arts usually retain the color schemes developed in the original mediums. Modern study has revealed that the temples of Egypt were painted inside and out, but the palette, although extensive, was employed without any regard for color harmony. Tradition laid its lifeless hand upon all art in Egypt. Hieroglyphs, human figures, material objects, and all other elements of relief carving and architecture were consistently painted by formula with the same unchanging tones. In fact, color came to architecture second hand, for wall paintings and reliefs illustrating architectural constructions preceded the decoration of the monuments themselves, and set the palette later used on buildings.

In Greece, the color decoration of architecture goes hand in hand with, and probably stems from, the coloring of sculpture. This particularly true of painted, architectural terra cottas which were created in the shop of the potter. A restricted palette of two principal color combinations was used to augment the white of plastered walls: on one hand, red and yellow, and, on the other, red and blue. Two attitudes dominated the color decoration. Tradition had firm hold on the more frankly decorative details, such as acroteria and antefixa, whose floral motifs were painted in the style and colors of the minor arts. The second attitude dealt with structural elements: stone translations of earlier wooden members--triglyphs, mutules, and moldings--were singled out for decoration in red and blue. Areas formerly voids, such as metopes and tympana, were filled with colored sculpture. It should be noted that the use of color on vertical supporting members was consistently avoided.

Although color was confined to the supported rather than the supporting members, we must not believe that any logical plan was used, either to achieve a balance in the amounts of the different colors used, or to create a controlled color harmony. Due, rather, to the very restricted palette, color was applied in a system of continuous alternation: in the entablature, for example, we find red guttae, a blue regula, red taenia, blue triglyphs, red guttae, blue mutules, and red lower corona. Thus, when we realize that color was applied without any freedom of choice, we may find it difficult to believe that Greek architectural polychromy was planned to enhance structural form. Was it planned to produce or arouse emotional feeling on the part of the beholder? If we take into account the fact that Greek literature reveals no passage in praise of beauty as a human creation, and contains no suggestion of deliberately producing aesthetic reactions according to plan, we must accept Greek polychromy as the continuation of traditional modes along unalterable lines, without any possibility of artistic choice as understood by the modern artist or architect.

Today, the Parthenon stands colorless except for the warm tones of the aged marble. As students of its structure, we are inclined to marvel at its multitude of refinements: the varying inter-columniations, the upcurving horizontals, and the axial inclinations of the columns. Explanation of these features as part of a logical scheme has been largely unsuccessful. When we consider the fact that the potential effect of the structural refinements may well have been nullified by the immediate competition of large areas of bright color, we may again question whether considered rationalism was a basis of Greek architectural decoration. For rationally speaking, it is hard to conceive of a building which is both brilliantly ornamented and in which structural subleties play a dominant role.

Greek color decoration defies precise explanation because we cannot trace the exact means by which polychromy came into architecture: whether as a sudden bold step, or as a mere adaptation of the patterns and tints of other mediums. Once color was adopted, it did not develop through an experimental cycle of patterns, types, and hues.

Thus, Egypt and Greece furnish unsatisfactory examples to explain why and how color invades architectural decoration. Much more illuminating are the structures clad with faience mosaic, which were erected in Persia during the Islamic period. From remote times, color had been used in this region as an important feature of architecture. In antiquity, the familiar polychromatic, glazed brick friezes of Babylon mark an early culmination. Assyrian glazing technique lingered on in the decoration of Achaemenid palaces at Susa and Persepolic, but after 300 B.C. it vanished completely from architecture. The important factor, however, was that the ability to produce fine uniform glazes continued to be a significant part of the potter's craft all through the subsequent Parthian and Sassanian periods. In the seventh century, the Islamic conquerors of Persia and adjacent lands gave a powerful impetus to the dormant capabilities of the quiescent East. Architecture shared in a great cultural movement which, during the tenth, eleventh, and twelfth centuries, evoked the erection of hundreds of fabulous mosques and shrines. Fondness for expansive decoration in floral or abstract geometrical patterns was strong in the hearts of these people, and the natural result was that architectural decoration was developed to an amazing degree.

In these and later works, the traditional building material, brick, sundried or fired, was used both as structural core and surface enrichment. In the latter, brick bond patterns display a variety and ingenuity unequaled by the craftsmen of any other country. At first, this bonding was architectonic, tying the outer layer into the core of the wall; but as the technique began to be exploited to the highest degree, the structural quality of the material was lost. The revetment was no longer tied to the core, whole bricks were replaced by terra cotta insets of all sizes and shapes; and, finally, walls were coated with plaster into which was incised an imitation of the brick bonding patterns.

With the decline of pure brick decoration, a new technique arose to take its place. Potters, working in nearly every village, created especially notable and distinctive styles in such urban centers as Kashan, Ray, and Sultanabad, establishing ceramics almost on the plane of a major art. Vessels in a great variety of shapes were finished with single color glazes, to which was added decorative painting either under or over the glaze; and sometimes even gilding was applied as a final enrichment. The glazing colors, dark blue and light blue, were both obtained from cobalt oxide, and favored because the mineral was easily extracted from the local ore. Some of the standard products of the pottery shops were intended for architectural embellishment. These were painted and glazed, star shaped and octagonal tiles used for interior dadoes, and inscription bands made up of Arabic texts molded in low relief and painted and glazed. Both could be used either in new buildings or to rejuvenate the appearance of older structures; but in neither case did their use involve an architectonic relationship with the structure nor considered design on the part of the architect or builder.

During the eleventh century, building craftsmen in different parts of the country began to sense the possibility of employing these products of the potter's craft as a conscious architectural decoration. The first steps were tentative: standard tiles about a foot square, covered with

dark blue glaze, were cut up into irregular pieces which were then inserted sparingly and haphazardly into the completed wall surface. The next step logically called for the production of glazed pieces of specific geometrical shapes--circles, lozenges, and diamonds--which could be assembled into bands of color to relieve the monotone walls. Real progress came with the perception of the decorative value to be derived from the use of such treatment over large wall surfaces. Geometric patterns, already developed to a marked degree in pottery, manuscript illumination, plaster, and terra cotta, served as source material. Adapted to architecture, these patterns were treated as "strapwork" designs of continuously interlacing strands. Some of the strands were of plain unglazed terra cotta. Others were formed of pieces of dark blue or light blue glazed tile cut to precise shape and fitted together. Experimentation with this technique continued through the twelfth and thirteenth centuries.

About the year 1300, a logical climax was reached with the use of complete faience mosaic in which all elements of the pattern were pieces of glazed tile, with the result that very extensive wall surfaces were covered with an unbroken revetment of enameled pattern. To the two blues, which had formerly been the only colors used in the "strapwork" patterns, were now added white, black, and finally aubergine, green, and yellow. The patterned faience spread over the entire exterior of the structures and invaded the interiors. It is clear that the technique of faience mosaic, so steadily developed from obscure beginnings, was thoroughly architectonic in character. In the imposing Timurid monuments of the fifteenth century, at Mashad, Herat, Bokhara, and Samarqand, and, in the Safavid structures erected throughout Persia in the seventeenth century, the technique became a standard system. While the core of the structure was being raised, craftsmen working at the site determined the decorative scheme according to a panel division of wall surfaces. Full scale pattern drawings were made and the glazed shapes cut out and fitted together over this pattern. Each panel was then backed with plaster, raised to its final position, and bonded against the structural wall. Since the essential stylistic spirit of these Islamic structures was the creation of very large plane wall surfaces with a minimum of moldings, projections and set-backs, the multicolored ornament which emphasized continuity in structure and ornament enhanced the fundamental qualities of the architecture. Although the individual patterns were often of great complexity, the scale of the pattern was so small that it absorbed the attention of the spectator only if he looked deliberately at details instead of the principal masses of the building. When the mosques were seen from any distance, the vibrant and expressive color served to integrate the parts to the whole and to emphasize such features as horizontality, verticality or position of openings, according to the considered plan of the designer. The palette was extensive and not controlled by tradition. Different regions showed a local preference for particular colors: blue predominated in Persia, while green was more popular in Asia Minor. The choice of colors in any pattern was dictated only by a desire to achieve color balance and color harmony, and in this respect showed a rationality and an approach to modern sensitiveness quite remote from Egyptian and Classical usage. If the past has any lessons applicable to the problems of contemporary architectural decoration, they can surely be found in the technique of Persian faience, for in that style color and ornament were fused into a fundamental unity of the most architectonic nature. Colored patterns played their role on every part of the structure in striking contrast to the spotty applique so common in present architectural enrichment.

The products of Persian genius may suggest a combination of inspiration and logic such as is needed in formulating a contemporary color style, but they will not solve the question of a modern ornament executed in any of the new modern materials --for example, such materials as those used to sheath a structural steel skeleton. Theoretically, a sheathing of monochromatic stone slabs is only one of a large number of possible materials, materials in which color might play an important part. These materials are not of necessity restricted to small units put in place according to the traditional methods of the mason, for more imperious requirements are that they shall be light in weight, applicable in rather large pieces, impervious to the elements, and possibly of insulating value. Glazed tile and enameled metal sheets satisfy such demands, and have the possibilities of ornamental color treatment inherent in the very material. Colored concrete slabs are another type of material whose potentialities have not been fully exploited. It may be impossible to establish a program by which modern architecture is necessarily fused with colored decoration, for any program could deny the assumption that ornament must grow from the major characteristics of the contemporary architectural style. We may well believe, however, that the increasing predominance of color in all phases of modern life and the availability of colorful structural material will produce in good time a bright, spirited, and thoroughly architectonic ornament.

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ON A PECULIAR FEATURE OF THE CITY PLAN OF MOHENJO - DARO

by Hans Blumenfeld

The excavations at Mohenjo-Daro have shown that the Indus valley may lay claim to the title of cradle of civilization, rivaling with the valleys of the Nile and of the Euphrates and Tigris(1). In one respect at least, the men of the Indus appear to have been decidedly superior to their contemporaries in Egypt or Sumer: they were "pioneers in the art of city planning"(2). It is greatly to be regretted that in 1931 the financial straits of the depression forced the government of India to interrupt the excavations, before the ancient city plan was entirely clarified. The wall, normally the most decisive element in the morphology of towns, has not yet been traced; indeed, its very existence has not been established beyond doubt (3). As yet, no temples, palaces, or tombs have been discovered, though some sanctuary may be hidden below the foundations of the Buddhist stupa. Unfortunately, however, the lowest layers are below water level and practically inaccessible. We do not know, therefore, how the city plan developed. The lowest level yet reached evidently belongs to an intermediate period. At that period the layout of the streets and lanes was already definitely fixed. Since then the city has been rebuilt seven times without any change in plan (4). It is therefore very likely that this plan dates back to an even earlier period, well up in the fourth millennium B. C. Possibly it belongs to the earliest city of which any trace has been found anywhere.

Now this most ancient city looks strangely modern. It may be going too far to call it "a model of democratic urbanism"(5), but it certainly has a surprisingly rational and utilitarian aspect. Nothing recalls the vast temples and procession streets of Egypt nor the huge

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(1) Sir John Marshall: Mohenjo-Daro. London, 1931.
E. J. K. Mackay: Excavations at Mohenjo-Daro. Delhi, 1938.
Kidar Nath Puri: La civilisation de Mohenjo-Daro. Paris, 1938.

(2) Puri, p. 19.

(3) Mackay, p. 5.

(4) Marshall, p. 187. Puri, p. 19.

(5) Puri, op. cit., p. 20.

Hans Blumenfeld was educated in the universities of Munich, Karlsruhe, and Darmstadt, and studied History of City Planning with Dr. A. E. Brinckmann. In addition to professional work in Hamburg, Vienna, Moscow, New York, and Los Angeles, Mr. Blumenfeld has written many articles on housing and city planning for German, Austrian, and Russian journals. He is now Research Assistant with the Philadelphia Housing Association.

ziggurats and palaces of Mesopotamia, nor of the impressive walls and gates of Syria and Asia Minor. The dominant elements are the houses of the citizens, usually built around a court and divided into large blocks by wide straight streets running roughly north-south or east-west. The blocks are further divided by narrow alleys; but, while running parallel to the streets in accordance with the rectangular shape of the lot, these alleys do not seem to follow any definite pattern. Once established, however, the layout of the alleys was also carefully conserved. This testifies to an efficient civic administration, as does the evidence of well planned removal of sewage and garbage.

The contemporary cities of Sumer and Akkad are vastly inferior in all these respects, and it is only towards the middle of the third millennium that anything comparable appears in Mesopotamia. As we have ample evidence of intercourse between the civilizations of the Indus valley and of Ur, it is not unlikely that the subsequent development of the rectangular plan in Babylonia is due to the example of the Indus cities. Babylonian influence, however, was almost certainly a factor in the adoption of the "Hippodamic" plan by Greek cities; and from these again have sprung all rectangular plans of European and American cities.

As for India, the excavations of Taxila have confirmed the reports of the Greek travellers about the square outline and rectangular street plan of the cities of the Indus and Ganges valleys. From those days down to our time, the cities of India have shown the division into square blocks and the broad streets oriented to the four cardinal points. The fact that the cult of Śiva already existed at Mohenjo-Daro and must have come down to modern India through the non-Śivaitic, Vedic period, justifies the assumption that this resemblance of the city plans of historical India to the plan of Mohenjo-Daro is not an accident. From Buddhist India again this plan probably found its way into China and thence to Japan. Thus, Mohenjo-Daro may well be entitled to claim the ancestry of the rectangular plan throughout the world, with the exception of pre-Columbia America and possibly of Ancient Egypt.

This unique historical importance gives a special interest to every detail of the city plan of Moheno-Daro. Now the streets of the city show a very strange peculiarity. While the houses are generally well aligned, the two sides of the street are usually not exactly parallel. The street widens slightly, then a corner butts in, encroaching on the width, and then the next wall again slightly slopes back. Or, reading the map the other way, time and again a house or group of houses obliquely encroaches on the street, then the next house is set back a bit, and again its wall forms a slight angle with the theoretical street line, again encroaching on the street. In itself, such irregularity in details is natural enough; one would expect, however, that the angles with the street line would occur either way indifferently. But, rather strangely, in the vast majority of cases the street widens to the south or east respectively, with the protruding corners facing north and west.

This writer has, to the best of his ability, scaled off all pertinent dimensions from the plates in Sir John Marshall's publication(6). In Mr. Mackay's volume, unhappily, the scale of the plates is too small to allow any reliable scaling, but the dimensions of several streets

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(6) Marshall, op. cit. plates XXII, XXVII, XXX, XXXIX, LIII, LVII, LXI. LXII, LV.

are given in the text (7). The results obtained from both sources are summed up in the following table:

widening	streets	alleys	widening	streets	alleys
to the south	30	14	to the east	4	27
to the north	2	6	to the west	1	14
unchanged	6	18	unchanged	1	10

With the greater part of the city still unexcavated, and with the possibility of mistakes in measuring, drawing, and in scaling off the plans, the evidence is perhaps not absolutely conclusive. However, it appears to be strong enough to make a coincidence from mere chance highly improbable. The evidence is stronger for streets, where greater care in planning may be expected, than it is for alleys; being 34 against 3, with 7 "neutrals," for the streets, and 41 against 40, with 28 "neutrals," for the alleys. In addition, the deviations from the theoretical street line seem to have been followed down through subsequent layers without any attempt at correction, as might have been expected in case of mere accident.

The explanation of this strange phenomenon is anybody's guess. Ancient Greek city planning theory comes to mind, calling for a city's facing east or south so as to be open to the sun and to the salubrious winds. The fact that this theory is credited to Hippodamos the Pythagorean lends a peculiar flavor to this analogy, in view of the supposed influence of Indian wisdom on the philosophy of Pythagoras. Actually, in the Indus valley a southern monsoon prevails in summer, carrying cool air from the ocean, while in wintertime an icy north wind prevails (8). This might be adduced to explain the tendency to widen the streets towards the south, but it does not account for the opening up of the meridional streets towards the east. Besides, the widening is so small as to be hardly of any practical value, while it is too irregular to be ascribed to any religious prescription.

It might prove helpful to consult the rich old Indic literature on architecture and city planning, most of which, however, is inaccessible to the student ignorant of Sanscrit. Happily, one classical treatise on the subject, the "Manaşara," is now available to Western readers (9). According to the editor and translator of this book, it may have been written in the eighth century A.D., but the doctrines set forth therein are certainly much older. A connection, however, with the founders of the Indus cities who lived 4,000 years earlier, is purely hypothetical; indeed, up to the discovery of the continuity of the Şiva cult, any such idea would have looked outrageously absurd.

The pronouncements of the Manaşara on orientation are somewhat confusing. We are told that for the highest cast, the Brahmans, a

(7) Mackay, Op. cit., pages 9, 14, 25, 31, 32, 34, 36.

(8) Puri, op. cit., p. 10. Marshall, op. cit., p. 263.

(9) Prasanna Kumar Acharya: Architecture of Manaşara. London, 1933; also the same author's: Indian Architecture. London, 1928.

"site is auspicious which is ... sloping towards the north," while for the three other casts a slope towards the east is recommended (p. 12; ch. III, 18-29). We learn that "a ground which is elevated towards the south and towards the west is suitable (for the buildings) of the gods and the men" (p. 13; ch. IV, 2-3); further, that "the due east should be preferred for the building of those who desire salvation," that "the N-E is preferred for those who seek enjoyment," and that "that which faces S-E is the source of all evils; therefore, all buildings with face towards the S-E should be avoided" (p. 30; ch. VI, 87-90). In conformity with the above mentioned rule concerning the desirable slope is also the prescription that "in the west should be the emperor and ... the houses of the priests" (p. 74; ch. IX, 223-229); further that "the architect and the master standing with face towards the east or north" shall strike the corner peg. In contradiction to this general preference for the north and east, however, we learn that "a ground ... having a pond surrounding the south (and?) a southern aspect ... brings prosperity" (p. 13; ch. IV, 13-16), and that "the entrance doors of the houses in a village should be constructed by the south side" (p. 91; ch. IX, 517-518). It is also recommended that the chandalas (the outcast), the places of cremation, as well as the temples of fearful deities be placed to the N-W of the city.

While there appear to be some contradictions in the theory of orientation as put forth in the Manaşara, there can be little doubt that north and east are generally coupled as the favorable aspect, and west and south as the adverse ones. This does not fit with our evidence from Mohenjo-Daro, which coordinates S and E on one side, and N and W on the other. There is, however, one passage in the Manaşara which says: "in replanning or remodeling an ancient village, it leads to prosperity if its expansion takes place towards the east and south directions" (p. 92; ch. IX, 523-528). This prescription receives added interest in the light of a statement by a modern student of Indic city planning, saying that in southern India and on Ceylon the suburbs are generally located "on the prolongation of the north-south axis or outside the eastern city gates (10).

Among the hypothetical explanations of the peculiarity of Mohenjo-Daro city planning, the most plausible guess may be to explain it by a peculiar rule or habit of the city surveyor. Evidently the city fathers of the Indus valley, whoever they may have been, kept an eye on the maintenance of the right of way of the streets and lanes, and saw to it that any one desirous of building a house would respect the street line. One may imagine that this limit was fixed by a corner peg or kindred device, planted by the city official at the farther end of the lot and religiously respected, while the other end of the house was supposed to join the neighbor's wall, but was less rigidly controlled. Provided that something like the Manaşara rule of expansion towards the east and south existed in those old days, it may be further supposed that even in building within the existing city the eastern and southern ends were regarded as the "far" ends, to be fixed by the city official's peg.

This assumption of a continuous tradition of Indic city planning is certainly a tempting hypothesis; it must be admitted, however, that as yet it is pure guesswork. As far as this writer is aware, the peculiarity of the Mohenjo-Daro city plan is unique; nowhere is to be found a parallel which might shed some light on its reason or origin. It remains a riddle challenging our wits and our imagination.

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(10) Karl Pfeil: Die indische Stadt. Leipzig, 1935.

THE AMERICAN HOUSE IN THE VICTORIAN PERIOD

by Richard Irvin Brumbaugh

Why a certain period in American culture--from about 1860 to the early 1890's--should be called "Victorian" need not detain us when we attempt to trace the relation of cause and effect in dwelling houses of that time. That it was a period of bad taste in matters of art, everyone knows. Victoria's name really suffers in that respect, for much good work was accomplished in the early and late portions of her long reign from 1837 to 1901. Stately houses in the Greek Revival movement were constructed until 1850; many good houses of eclectic design were built in the last years of the century; but "Victorian," at present, seems to remain an epithet of contempt.

The American house of the Victorian period is an unpleasant, yet significant, object. It is unpleasant because it is confused; it is significant because its confusion mirrors perfectly the inner confusion of the times that produced it. It was the product of painstaking work over architects' drafting boards, and not to be confounded with the designs of untutored carpenters.

In 1860 public taste by no means reached its lowest depth; but by that year mass production of commodities had started in a really big way, and epoch-making cultural effects resulted. The standardization of innumerable objects entailed an irreparable loss of handicraft technique which had formerly contributed distinction to the product. The factory worker could not possibly know or care about adaptability of materials and forms to objects of daily use.

Furthermore, many rough spots appeared beneath the smooth surface of unprecedented wealth acquired at this time in the North through mass production. Many social ills, brought on or aggravated by the Industrial Revolution, found vivid expression in the turmoil of the Civil War, industrial strikes of great violence, formation of radical political parties, and many other activities. Men were in no mood to accept the scientific, social, or artistic achievements of the past as representing perfection. Even the architecture of preceding eras came in for its share of criticism by independent thinkers.

The architectural books published then, as in any other period, were more unhampered expressions of their authors than work actually executed, for in the latter the abilities of the designers might be submerged beneath the clients' personality. The books explained the ideals which architects held and earnestly tried to follow.

In 1854, John Bullock wrote that "The architect that copies a Greek or Roman edifice for an American occupant shows himself less than an artist. The peculiarities of the American people, their desires, their occupations and wants must first be apprehended and under-

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Richard Irvin Brumbaugh is a member of the architectural faculty of his alma mater, Washington University. He is especially active in the field of American architectural history.

stood."(1) This certainly explains the man's ideals. In discussing the Greek Revival movement, Cleaveland and Backus hope that "this folly has had its day,"(2) while M. Field,(3) by quoting Sir J. Gardiner Wilkinson, shows his contempt for Ruskin and all his writings. But despite the independent attitude of these authors, the past could not be entirely divorced. They all showed designs which they called Gothic and Italian, and Bullock even displayed a Byzantine cottage.

Surprisingly familiar is A. J. Downing's pronouncement, "Whatever tends to heighten expression of purpose must grow out of some quality which connects itself in the mind with the use for which it is designed, and a genuine mode of increasing our admiration of any building is to render it expressive of the purpose for which it is built."(4) (Louis Sullivan expressed the same thought tersely in his "Form follows function.") Again, Downing seems quite modern when he writes, "We think a very ingenious architect might produce an American cottage style by carefully studying the capabilities of this mode (the bracketed).... Extending the roof....gives expression and character at once to the exterior, and the broad and deep shadows thrown by the projection are not only effective and pleasing....but they increase the actual comfort of the chamber apartments; a projection of from 30 inches to 3 feet serving as a hood to shelter the windows from the summer sun during all the sultry portions of the day; while in winter, the sun being low in position, this effect will not be felt when it is not desirable." This is the very argument advanced in support of the numerous "prairie" houses by Frank Lloyd Wright in and around Chicago.

These writers apparently could not accept the American Colonial as having any merit, but were greatly intrigued by the attempt to adapt foreign importations. Such an attitude inevitably led to the adoption of features like the "Mansard" roof for houses lacking entirely the necessary scale to stand up under such adornments. Field grudgingly admitted the Mansard's convenience "in towns, where they are concealed," but noted their "very bad effect in country houses."

In discussing the general principles of house planning, the anonymous author of "The Grammar of House Planning"(5) deplored the subju-

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(1) John Bullock: The American Cottage Builder. New York: Stringer & Townsend, 1854. The author is described as Architect, Civil Engineer, Mechanician, Editor of "The History & Rudiments of Architecture," "Rudiments of the Art of Building," etc.

(2) Cleaveland and Backus: Village & Farm Cottages. D. Appleton & Co., 1864. The authors offer to sell their plans, $3 to $5 per set, and can quote both Bacon and Ruskin to suit their purpose.

(3) Field: Rural Architecture, New York, Miller & Co., 1857. This author was not unread, listing 17 prominent works as his references, among them Durand's Parallele d'Edifices, Percier & Fontaine's Maisons de Rome, Pugin's Specimens of Gothic Architecture, and Pugin's Examples of Gothic Architecture.

(4) A. J. Downing: Cottage Architecture, John Wiley & Son, 1868.

(5) Published in 1864 by A. Fullarton & Co., Edinburgh, but known in America.

gation of plan to elevation. He says "a clever architect will be able to give a plan that has the necessary conveniences, sufficient character to be pleasing in elevations." He further recommends that there "be a water closet on every floor, the one above being situated over the one below, without necessarily disturbing the arrangement of the rooms on either floor." Twentieth century planning has not quite caught up with this stipulation in all instances.

Discussions of building materials were lengthy, and an almost feverish search was evinced for materials cheaper than stone or brick, and more durable than wood. Pise, cob, mud, and rough-cast were some of the materials advocated for cottages costing from $400 to $900.(6) Hollow bricks were mentioned frequently, and a brilliant future was forecast for them as well as for other artificial products. Woods' artificial stone, consisting of sand, gypsum, and blood was one of the three materials that were to institute a new era in building.(7)

We can scarcely judge the plans of Victorian houses on the basis of the present-day social setup or of conveniences as we know them. In the 60's, ideas of fair working conditions allowed the kitchen of the large house to be placed almost invariably in the basement. Such conditions were general, despite the admonition in the "Grammar of House Planning" to plan for good lighting, especially in the kitchen. It was undoubtedly due to an awakening consciousness of the rights of others, as well as to the growing demands of servants, that the kitchen came up out of the basement of the 60's and 70's to find its present accustomed place in first floor plans. The rights of others, too, called forth the comment that since "good servants are comparatively rare....(and) do not stay long, we should employ the smallest number possible, should arrange all the apartments conveniently, and introduce all manner of labor saving devices, such as the rising cupboard or dumb waiter, the speaking tube, and the rotary pump."(8) Such a passage illustrates well how the servant problem helped to guide creative thought to the development of mechanical improvements in Victorian architecture.

This was the trend of the times, for there was scarcely a year during the 60's and 70's when some very important invention was not registered at the Patent Office in Washington.(9) It was only natural that much thought should be given to the mechanics of comfortable living. Certainly such things were more readily understood and appreciated by American clients than the aesthetic problems which architects were deliberately setting themselves and failing so miserably to solve.

Much space in architectural publications was devoted to plumbing and fixtures, ventilating and heating devices,(10) and to lighting and orienting the house. Significantly, the most interesting series of articles published in the American Architect in the year 1879 dealt with the development of the fireplace from the standpoint of efficiency

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(6) C.P. Dwyer: The Economic Cottage Builder, Buffalo, Wanzer, McKim & Co., 1855

(7) Ibid.

(8) Downing, op. cit.

(9) Beard, The Rise of American Civilization.

(10) Central heating was not an invention of the age, but a practical development of the European experiments carried out in the 18th century.

not aesthetics. All the steps were shown, including the combination fireplace-stoves and Benjamin Franklin's revolving grate, as well as novel ventilating schemes in connection with these heating arrangements. C. P. Dwyer detailed fully his "Reciprocating Furnace and Refrigerator," which was to act as a complete air conditioner. The only extra labor involved would have been carrying a quantity of ice to the attic every day that cooling was required.

Many diagrams explained the action of water closets; much attention was given the fixed bath tub which was still a novelty (11). Most of the devices for lighting, heating, ventilating, and plumbing improvements were crude in form and wasteful of space and materials. For instance, the usual bath tub was large, built of zinc (12) and inserted into a wooden frame. The minimum amount of water advocated for an ablution was 54 gallons (13), but that amount, presumably, was for the customary Saturday night bath.

Enough has been quoted to show that the architects of the Victorian Era were imbued with the restive spirit of the age, ready to discard precedents in design and construction, and eager to adopt all scientific developments and mechanical aids to comfortable living. Superficial accounts of the period assign the entire blame for its bad architecture to the rough and ready barons--of railroad, pork, and steel--who demanded, with the same truculence that insured their commercial rise, display "and lots of it." But it was the designers of the buildings, primarily, men who were at once products and victims of the age, that made possible the unprecedented response to the architectural demands of the parvenu; a response which became more and more depraved as the 70's and 80's wore on. This progressive depravity was helped decidedly by pseudo-scientific thinking which adopted such devices as the octagonal house sponsored by a phrenologist and extolled for its ability to enclose more space behind a given length of wall surface than any other form (14).

However, this Age of Darkness gradually came to an end when the houses of H. H. Richardson and the later mansions of R. M. Hunt (15) began to exert a moderating influence on contemporary designers. Despite serious faults, the work of these two men was a great influence for good. It opened the way to a more eclectic approach to design which, though lacking in great originality, brought the Victorian period to a happier close than could have been foreseen a decade earlier.

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(11) The first bath tub is said to have been installed in Cincinnati in 1842.

(12) Dwyer, op.cit. "Zinc is much used for the lining of bathing tubs."

(13) Bullock, op. cit.

(14) O. S. Fowler: "A Home for All." 1856. Describes and illustrates his octagonal house at Fishkill, N. Y. While not by an architect, this book is highly recommended for its entertainment value.

(15) The early work of Hunt was not much better than that of his contemporaries. See examples in Vol. 5, The Architectural Record, and Joy Wheeler Dow, The American Renaissance.

THE PRESSING CHALLENGE OF OUR NATIVE AMERICAN CULTURE

by Roger Hale Newton

For some time now, and especially since events in other parts of the world have taken such a disastrous turn, I have wanted to give expression to some basic ideas concerning our native American culture. I hope that they are of deep interest not only to the readers of this admirable magazine, but also to the larger public beyond. Although they may be somewhat differently expressed, these basic ideas probably explain some of the motives behind the recent highly laudable increase of interest and activity in the entire field of Americana.

We Americans must realize that we have a culture indigenous with our soil. We must know how it evolved, what its constituent elements are, and what we wish it to become in the future. . . Our ability to sense it, to describe it, to analyze it, to define it, to depict it, to record it, and to perpetuate it should not only be our privilege, but should constitute a duty and a challenge as well.

To begin with, I take it for granted that by now everyone, or at least every thinking person, realizes that we have a native culture, the product of special needs and special problems and special environmental conditions as found upon a new continent, and constituting an historic phenomenon. But although the vast majority no longer question its categorical existence, only a few, indeed, have any notion of what its constituent elements are, or could even express its significance in simple terms....

Now this failure to grasp what should be common knowledge indicates not only that a state of utter confusion still exists, but that certain insidious tendencies have long been at work, destroying whatever confidence we Americans formerly had in ourselves and in our native culture.....

First of all, there is a deeply rooted inferiority complex brought back to these shores almost a century ago by our gullible and awe-struck "Innocents Abroad." It arises also from the usually hasty and supercilious "observations" of foreign visitors... To this, let us add the often esoteric literary criticism and analysis of previous cultural glories by such nineteenth century critics as John Ruskin (1819-1900). His literary influence upon both the contemporary generation in England and upon subsequent ones in the United States was not only profound, but, as the result of misinterpretation and confusion arising from his illogical combination of morals with aesthetics, sinister as well. As far as the great Industrial Evolution was concerned, Ruskin lived in an Ivory Tower, failing to comprehend the great sociological and technical forces at work in his eventful day.

Roger Hale Newton is the author of the biography, just issued, "Town and Davis, architects." As stimulants to a more vital discussion of American architecture and culture, and to the gaiety of American scholarship, the JOURNAL will welcome expressions of agreement or disagreement with Mr. Newton's thesis.

Ruskin's critico-aesthetic successors, such as John Addington Symonds (1840-1893), and Walter Horatio Pater (1839-1894), further confused the issue by harping upon the faded glories of the Italian Renaissance, and consequently implying the futility of making any contemporary endeavor to create and originate.... This attitude of intolerance and scorn failed not only to supply a remedy for any current aesthetic ills, but also deepened the gulf between the romantically glorious past and the seemingly fruitless present, thereby stultifying the creative faculties of artists by telling them to kneel humbly before the so-called "Primitives and Old Masters." Not even the emphasis placed upon handicraft by William Morris in England, nor the inquiries into new building mediums and techniques by Viollet-le-Duc in France, for example, could serve as an antidote to the suffocation resulting from this sad misinterpretation of Ruskin, Symonds, and Pater, granting that these critics really hoped to stimulate rather than to stultify...

In American intellectual circles, meanwhile, Charles Eliot Norton of Harvard emulated his correspondent, Ruskin, by setting up another Ivory Tower at that University, turning hisface likewise towards the Italian Primitives and Old Masters and away from all contemporary stimulus and endeavor.

Instead of trying to create beauty with new artistic and industrial mediums, we, the American people, were told to emulate only the past achievements of "Great Ages" and thereby become eclectic stylists, as Europeans had already done; we were told that it would be impossible to achieve beauty in machine-made objects, and this included, ipso facto, any nineteenth century utilitarian structures involving engineering and metal construction. The result was that we soon believed that we had no culture of our own; that we unwittingly created ugliness instead of beauty, and slums instead of village greens; that we consequently owed every shred of remaining beauty to the irretrievable and romantic past; and that we could do no better than to study and cherish and imitate and preserve and exhibit these precious fragments of those nostalgically rosy eras....

Hence our self-appointed guardians of taste banded together in a state of fright; founded "Aht museums; collected Primitives and Old Masters and other battered souvenirs of seemingly better days, and set them apart from the vulgar horde by means of plate-glass show cases and plush ropes, in the midst of tomb-like silence; enshrined them in an aura of pedantry emanating from the German Universities; and preached a doctrine of intellectual and aesthetic snobbery, declaring that only the erudite could appreciate "Aht," while only the rich deserved to own it (thereby becoming socially respectable and wiping away the stains of trade!)....

This specious nonsense drove the American Masses into a state of temporary submission, and placed the bright little coterie of scholars, experts and collectors upon hollow pedestals from which they meanwhile surveyed the naughty and untutored world beneath them from whose destructive hands they had just salvaged these battered treasures.....

Meanwhile, our innocent, gullible public, satiated with the Get-Rich-Quick-Greed of the post-Civil War Era, was becoming shamefully intolerant of all non-business, non-commercial types and groups, and, in particular, scornful of the creative artist. For nearly 100 years now, many of our talented native sons have been obliged to seek refuge, understanding, and a market in Europe, against the rising tide of

bigoted Anglo-Saxon industrialism and its blindness to sociological and aesthetic problems. Meanwhile, these exiled painters and sculptors and writers and singers and students of every kind should have been able to remain in our midst to enrich our national culture. This tragic inhospitality and intolerance on the part of our vulgarly commercialized society, aided by their own cultural shame, has borne only the fruits of disillusionment and cultural sterility...

But now, thanks to the humanizing element in the Depression, and the various governmental W.P.A. Projects and Agencies, and a rapidly increasing number of brave American souls, our native talent is again coming to the fore, rising to the opportunity magnificently and not being obliged to Latinize their proper names, either...! This is indeed portentous of the undeniable fact that we Americans are not only coming of age, culturally, in the second quarter of the XX Century, but that we are also rediscovering that for which we long hung our heads in shame, especially since the Civil War period, with its orgiastic bonanza of filthy and undigested industrial prosperity...

Well, we, the American Masses, are finally realizing that perhaps we were less stupid and more productive of a new kind of American beauty, albeit with the help of the much despised machine, than our intellectual "betters" had supposed, and that the pedants and collectors and experts and curators and dealers did not always gather and codify and label as well as they pretended, and that, quite unconsciously, we native and benighted Americans had meanwhile produced an indigenous culture quite unbeknownst to the little gilt gods of snobbish pedantry..!

It is this native culture, built up atom by atom like a coral reef, over a period of some 320 years, which now looms large in our very midst, and with which we must immediately reckon if we would gain the respect either of posterity or our neighboring nations. It is this native culture with which we must now concern ourselves 100 per cent, yet not in any chauvinistic way, if we would emerge from this present confusion with any degree of clarity and sanity....It is this need for promoting our native culture to our lasting advantage which constitutes my message both to the readers of this admirable magazine and to our public at large. If we fail now, after one disastrous War and while we are in the midst of its sequel, to achieve the maximum realization of our cultural integrity and fecundity and expression and progress, we do indeed face the Darkest Ages yet in history....

But we need not contemplate this dilemma if we awaken to this challenge now, because we already have an invaluable reservoir of three centuries of noble endeavor upon which to build a new and a special and a hopeful and a fruitful Way of Life, and a special kind of American beauty, which may serve as beacons in this troubled World. I am less concerned with the actual forms or shapes or styles or patterns or mediums by which it will develop, than that it should develop and ripen in our own minds and eyes and in the products of our hands, daily, monthly, and yearly....

The mere realization that we have an indigenous culture of three centuries' growth is enough to give us the necessary courage to create both for the hour and for the morrow, without the fear of not measuring up to past Worthies of whatever historic period. It is this confidence in our latent abilities and talents, and, above all, in being our true selves that we so sorely need, in order to spur us on towards our ultimate goal as a great, Free People, expressing ourselves freely through

(concluded on page 38)

"WALLS TELL A STORY": AN EXPERIMENT IN PUBLIC EDUCATION

by Giles Yates van der Bogert

"Variety," well known weekly, carried the following news item in its issue of April 15, 1942:

> "Walls Tell a Story, 15 minute - Local. Sustaining, Thursday, 5:45 P. M., W.G.Y., Schenectady. This catchily-titled educational, presented by Union College and the Albany branch of The American Institute of Architects, deals with historical buildings and other structures of the Eastern United States. If the series were written and delivered with more appreciation and understanding of the popular touch, appeal probably would be wider. Unfortunately, College professors seem inclined to be dry, technical, detailists when they get on the air" - Jaco.

Such was the reaction of one of the most important journals of the entertainment world to an experiment in furthering interest in the preservation of historic monuments in America. Although the criticism is harsh in some respects, the very fact that "Variety" saw fit to comment upon the program is a token of success, and brings to light the fact that the radio offers a new medium for acquainting the public with the fine heritage of our architectural past.

The broadcast was conceived by the Committee on the Preservation of Historic Monuments of the Albany Chapter of the American Institute of Architects. In a chance conversation between the author and Dr. Dixon Ryan Fox, President of Union College, the possibility of such a program was discussed and in Union College was found a ready collaborator. The program manager of W G Y, the General Electric Company's Schenectady station, reacted favorably with the result that W G Y offered to present a series of ten talks under the sponsorship of Union College and the Albany Chapter of the American Institute of Architects. The first series was so successful that W G Y asked that the program be continued in a second series of ten more talks. We are just ending this second series and will not attempt to broadcast during the summer months, but W G Y is extremely anxious that the program be resumed in the fall.

In general, we have attempted to arrange the series so that on each broadcast we have had an historian and an architect--the historian giving a background of the architectural period. In many instances, however, we have been fortunate in obtaining some of the best talent in the field and on these occasions have given the speaker the full time. For example, Mr. Stephen A. Pell, through whose efforts eighteenth century Fort Ticonderoga was restored, willingly came to

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Giles Yates van der Bogert, architect, is chairman of the Committee on Preservation of Historic Monuments of the Albany Chapter, American Institute of Architects.

Schenectady to tell us of the history and restoration of this milestone in Americana. Mr. Roger H. Newton, author of the recently published "Town and Davis, architects", came from New York to discuss Saratoga and its plush, post-Civil War hotels. Mrs. Dexter P. Cooper, director of the Vanderbilt Mansion National Historic Site, Hyde Park, N. Y., told of the Vanderbilt Mansion now under her care.

What has been the public's reaction? In one instance, a New Englander sent photographs of his home to ask us to identify the period and if possible the architect who designed it. There have been many requests for scripts which we hope to be able to publish in the near future. For example, the Rensselaer Polytechnic Institute at Troy, New York, has asked for the entire series to file in their Architectural Library. The President of the Johnstown Historical Society has requested copies of the talks given relative to Johnson Hall and its builder, Samuel Fuller, and has asked permission to have this work published. Being original research, it will be of extreme value in further acquainting the public with the history of the home of Sir William Johnson. In several instances, laymen have been stimulated by the broadcast to visit some of the buildings discussed.

Reactions such as these have led us to believe that this type of education is well worth the effort, and if carried on throughout the country, will bear fruit and assure the preservation of our historic monuments.

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EARLY ARCHITECTURE OF THE OHIO VALLEY

(an exhibition at the Taft Museum in Cincinnati, from February 8 to April 6, 1942)

reviewed by Harley J. McKee

This exhibition consisted of photographs of about fifty buildings erected between 1788 and 1860 in an area bounded by somewhat irregular lines drawn from Madison, Indiana, through Columbus and Marietta, Ohio, and Danville, Kentucky. Houses and public buildings from log cabins to Gothic castles were included, with Greek Revival examples predominating. The whole suggested an informal ramble by a photographer or an architect through this region, studying buildings sympathetically as individual characters, unrestrained by strict considerations of style and correctness. Actually, the views were the work of three well known professional photographers: Paul Briol, I.T. Frary, and Tebbs & Knell. Nearly all of the photographs were straightforward studies of architectural character and detail, with an unobtrusive pictorial quality, taking advantage of effects of perspective, foliage, and pattern of dark and light.

Among the oldest buildings shown was a house (1790) near Sinking Spring, Ohio, built of horizontal logs notched together at the corners, chinked with clay, and having a chimney of field stone. Not all of the early houses were of such a humble style, however. The Palladian window of "Liberty Hall" (1796) in Frankfort, Kentucky, showed a studied Federal or Adam refinement of detail; local tradition attributes this design to Thomas Jefferson.

A facade similar to those of the eighteenth century in the East was to be seen on "Our House" (1819) in Gallipolis, Ohio. It is of two stories, having five bays of openings on each floor, with two round-arched doorways whose deep reveals are lined with white painted wood paneling, contrasting with the brick walls, stone steps and lintels. This building is now the Museum of the Gallia County Historical Society. An example of nearly the same date but of an entirely different character is the Martin Baum house in Cincinnati, better known as the Taft Museum. This familiar design in the Federal or Classic Revival Style with its portico of modified Roman Doric columns and clapboarded one-story wings over a high basement, made a particularly appropriate setting for the whole exhibition and was also represented in several photographs.

Among the numerous Greek Revival examples were several of exceptional merit from Frankfort, Kentucky. Some of them are quite well known, such as the Court House and the old State Capitol, both designed by Gideon Shryock. A picture of the Philip Swigert house (1848) included the magnificent wistaria vine which nearly covers the whole two-story portico, being more notable--if possible--than the fine house itself. One of the most distinguished Greek porticos was that of the old Chapel of the Kentucky School for the Deaf at Danville, with four Ionic columns and entablature of wood, contrasting with brick walls.

A curious feature of Ohio Valley architecture of the mid-nineteenth century was the manner in which Greek and Gothic details were used side by side. For example, the Court House at Maysville, Kentucky, originally built as a City Hall is 1838, has a portico of four unfluted Doric columns, a pediment, and a square tower of several stages rising above the vestibule. Alongside, in the background of the same photograph was the simple brick and wood mass of a Gothic church built in the same year. In Frankfort, on the Dr. John Bibbs house (1840) are steep gables ornamented with tracery barge boards, while the cast iron porch is of Greek detail having a cornice surmounted by a row of filigree anthemions and latticed corner posts filled in with a pattern of interlacing grapevines. In neither case is the effect inharmonious.

At this exhibition one did not need to take canons of architecture too seriously; he could enjoy the Gothic Revival houses as he might the scherzo of a symphony. One of these houses, the Mound Cottage (1856) in Danville, was relatively simple in mass, with gingerbread ornamentation on the gables and the porch, but "Ingleside" (1852) in Lexington reminds one of the Smithsonian Institution on a small scale. In this house of modest size are lancet windows, crenellated towers, pinnacles, grouped chimney stacks, and Tudor arches, all composed symmetrically.

The "mechanics" of the exhibition were excellent. The photographs were uniform in size, 16" x 22", placed in slender wooden frames. They were well placed, adequately spaced, and well lighted, in a suite of rooms on the ground floor. At the side of each picture were given essential data about the building. Thus the careful craftsmanship of photography, assemblage, and hanging made a substantial contribution to the value and interest of the whole--an exhibition appealing to architect and amateur alike.

Harley J. McKee, graduate in architecture from the University of Illinois, studied at the Sorbonne and the Ecole des Beaux-Arts, has taught at Illinois, Ohio State, and Minnesota, and is now teaching architectural history at the University of Cincinnati.

"THIS IS CHARLESTON"

Exhibition at the Gibbes Art Gallery
March 27 - April 26, 1942

reviewed by Helen G. McCormack

"Nature and her founders gave Charleston a happy situation. Those who built upon it have left a rich inheritance. To preserve this we must carefully consider the problems of our progress. This committee has studied some of them. It has hunted houses in every street in Charleston. It has photographed and classified more than a thousand buildings. This exhibition shows you how much it found worth saving; something of what has been needlessly lost. It asks you how YOU would keep the rest."

In these words the Charleston Civic Services Committee invited visitors to the Gibbes Art Gallery and the public generaly to participate in its efforts to plan for the preservation of the buildings, gardens, and vistas which make Charleston unique among cities. The story of the committee, of planning needs, and planning accomplishments in Charleston was told in an exhibition at thirty-four panels displaying photographs, and maps.

An accounting of the committee's architectural inventory was shown on a panel which presented the following figures: 26 nationally important buildings, 97 buildings valuable to the city, 155 valuable buildings, 285 notable buildings, and 584 buildings worth mention. Photographs of a dwelling, a church, and a public building in each classification were included. The location of the buildings worth preserving was shown on a map, bordered with photographs selected from those made in the course of the survey. Photographs of the nationally important buildings, grouped on one panel, comprised one of the most impressive items of the show.

One series of panels gave recognition to the agencies which have operated for preservation and planning--among them, the city itself with its "Planning and Zoning Commission,",and its Housing Authority which not only operates slum clearance projects but has also included in one of them the intelligent restoration of an important old building. Other agencies include state, federal, and county governments which have found new uses for good old buildings; patriotic and cultural organizations, and business and individual enterprises.

In conclusion, the committee asked the question, "Who is responsible for Charleston's Future," and the visitor was answered with his own image in a mirror. He was then reminded that the city's motto: "Aedes, mores, juraque curat," can be freely translated to mean that each citizen is responsible for the care of its dwellings, customs, and laws, and must therefore remember that he is responsible for changing inertia into interest, and uncoordinated efforts into cooperation. He was invited to offer his opinion as to the most important thing to be done next. The more interesting and constructive opinions were published about a week before the end of the exhibition.

Miss McCormack is secretary to the Charleston Regional Planning Committee of the Carolina Art Association.

HARVARD ANNOUNCES NEW ARCHITECTURAL DEGREE

On February 10, 1942, the Faculty of Arts and Sciences established the degrees of Doctor of Philosophy in Architecture, Doctor of Philosophy in Landscape Architecture and Doctor of Philosophy in Regional Planning to be awarded for technical research in these subjects under the administration of a joint committee of the Graduate School of Arts and Sciences and the Graduate School of Design, this committee to be appointed by the President. The committee thus appointed will formulate requirements for the degrees under its administration corresponding to those of the Graduate School of Arts and Sciences. These arrangements will be adapted for the students who intend to teach as well as for those who intend to practice the professions indicated. The field of interest of those who are candidates for these degrees will be essentially technical research* in design and construction or in historical, scientific and economic problems relating to architecture or the arts allied with architecture.

Before he can be recommended for the degree a candidate must possess a reading knowledge of both French and German. This will be tested by the committee. In special cases some substitution of another language may be allowed by the Administrative Board of the Graduate School of Arts and Sciences. A minimum of two years of graduate study, one of which must be spent at Harvard, will be required, and a thesis presenting the results of independent research on an approved subject is also an essential requirement. The qualifications of the candidate will be tested by an oral examination.

* Candidates for the Ph.D. whose field of interest is primarily the history of architectural styles should carry on their work under the direction of the Department of Fine Arts.

The above paragraphs are quoted from the Harvard Summer School Bulletin Two, "Graduate School of Design."

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THE PRESSING CHALLENGE OF OUR NATIVE AMERICAN CULTURE, continued from page 33:

Beauty and Utility--Free from past stylistic fetters, Free from past feelings of cultural inferiority, Free from pedantic nostalgia, Free from creative inhibitions, Free from all fear of the nineteenth century Machine Age and Industrial Evolution, Free to use mechanical skills creatively and without precedent, and Free from our own doubts, since the American Order has always been founded upon Freedom of every description....

Let us therefore interpret this callenge in its widest possible sense, and as a result let us combine our Native American Culture with our historic emphasis upon Freedom of every kind and produce something truly original and autochthonous.

THE BAEDEKER BOMBINGS

(an editorial in the New York Herald Tribune, June 4, 1942)

It is clearly stated in all accounts of the Nazi reprisal raid on Canterbury that the Cathedral was the actual objective; and it is broadly hinted that this British national shrine did not come off unscathed. This may or may not mean that the great Cathedral at Cologne, which is one of the most impressive Gothic piles in Europe, suffered from the pounding which the R. A. F. gave the great Rhenish city. But, even if this vast monument and its irreplaceable relics were consumed, because they were in the heart of one of the greatest German arsenals and communication centers, it was no excuse for the Luftwaffe's assault on a little country town. Canterbury is of no industrial importance, with no more claim to hostile attention than any other English market town, if it were not huddled in the shadow of a beautiful architectural medley on the site of a heathen temple which a king of the Jutes gave to a Roman missionary for his episcopal seat.

No, this was deliberate, cold-blooded vandalism. These latter-day barbarians have struck at Canterbury precisely because they were aware of the beauty, the sacred associations and the fond literary memories which it housed; or at least because they assume that it must have such values to get so much space in Baedeker.

This idea of being guided by Baedeker to a cultural outrage, to the destruction of something that is the common property of all civilized men of whatever nation, and the loss of which will be as much deplored by civilized Germans as by civilized Englishmen when Hitler is scattered dust--this idea is indeed a measure of the Nazis' microscopic soul stature. Remember that it was a policy announced before Cologne, and was actually carried out against the "three star" Baedeker cities of York, Bath and Exeter, in vicious reprisals for effective British strokes at German military targets.

Well, if Canterbury is gone its indestructible associations are not. Several cathedrals have been burned over the site of Augustine's Ministry, but his heritage goes living on. Chaucer's immortal Pilgrims still ride piously but gayly to do reverence to Thomas a Becket's bones, though his tomb was desecrated centuries ago, and they will not be stopped by any puny German madman. The ashes of Stephen Langton, Champion of national liberty, whose defiance of King John led up to the Magna Carta, may be under a mountain of rubble today, but his work will go on over the leveled and forgotten graves of countless little despots. Maybe a fallen roof has brought the shield and helmet of the Black Prince down on his tomb; but the heirs of the yeoman archers, whom he taught to humble steel-plated arrogance in the dust, will go right on doing the work of their fathers; and all the more thoroughly for these vicious blows at the treasured symbols of their faith and tradition.

OBSERVATIONS ON THE HEPHAISTEION, by William Bell Dinsmoor. Princeton: American School of Classical Studies at Athens, 1941. (Hesperia, Supplement V, of series on The American Excavations in the Athenian Agora) 171 p., frontispiece, 76 fig., quarto.

In this admirable report, Dr. Dinsmoor describes at length his truly microscopic investigation and absorbing reconstruction of the famous Athenian temple, long known as the "Theseum," but now certainly identified with the cult of Hephaistos.

Based on the evidence of astronomical orientation, Dr. Dinsmoor determines October 17, 449 B.C. as the foundation day, a date generally supported by literary material and the new archaeological finds revealed in 1936 by the American excavations in the Agora. Sherds of ceremonial vessels and traces of fire seem to indicate that a primitive sanctuary of little architectural pretension had been destroyed by the Persians. The new project was one of the group that signalized the recession of Persian power and the consequent aggrandizement of Athens as an imperial state and depository of the Delian treasure. Two years later this great building boom reached a resounding climax with the inauguration of the ambitious plan for reconstructing the entire Acropolis.

Close analysis of the foundations and walls shows that the architect originally planned a cella slightly longer and narrower than now exists. As work progressed, however, he deepened the pronaos at the expense of the cella and planned to decorate the interior marble walls with mural paintings on stucco. When actual erection of the cella was started about 446 or 445, the interior was further modified, widened and shortened in order to introduce superposed Doric colonnades along the sides and rear, emulating Iktinus' scheme at Bassai and in the Parthenon, just begun. Although this new architecturalized decoration caused the abandonment of the paintings, the marble wall-blocks already fabricated were installed, the vertical joints carefully waterproofed with lead, and the inner wall surface left stippled for stucco, as originally specified. Not until 421-415, was the cult statue placed on its base.

Although the temple's primary history can thus be distilled in a paragraph, the deductive process by which it is evolved is necessarily long and arduous and is not calculated--indeed, does not pretend--to furnish the layman or even the general architectural historian with exhilarating reading. To ask more is to misunderstand the proper intent of an archaeological report.

Nevertheless the careful reader is rewarded by a surprising number of secondary facts which, taken together, create a considerable illusion of the architect and craftsman wrestling with problems as old and new as architecture itself. These are homely details which call to life the campaign of construction: a rough poros plumb bob; fragments of a rude stone bowl with red daub for a stonecutter's straightedge; a red-painted mason's mark on a foundation block; the three half completed lead joints where the not-over-conscientious plumber cut economic corners because it really was not exposed anyway; and the simple error in mislocating the western peristyle foundations. The Hephaisteion, in addition to its importance in classical times, also illus-

trates the adaptation of pagan sanctuaries to Early Christian worship. In this connection are noted the reoriented portal, the fifth century semicircular apse which was in turn replaced during the later Byzantine period by a polygonal construction. At the same time, too, the internal colonnades were eliminated and the nave covered with a semi-elliptical barrel vault in brick and concrete whose haunches hang from, rather than thrust upon, the ancient walls. Also of interest are the sepulchral vaults which, from the ninth century on, honeycombed the floors of opisthodomos-porch, nave, and peristyle until almost nothing of the ancient foundation fill remained.

14⅛ pages, 8½ per cent of the report, including 48 footnotes, are devoted to Protestants--chiefly, John Tweddell--buried in the church during the first quarter of the nineteenth century. If this account seems over-extended, it is because this reviewer begrudges such material the author's superlative knowledge, understanding and skill which all historians of architecture wish to see concentrated on a magnum opus of elucidation and interpretation of ancient Grecian buildings and their builders, so bitterly needed, so breathlessly awaited, and so long "forthcoming."

Turpin C. Bannister

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AMERICAN BRIDGES AND DAMS. Paul Zucker. New York; Greystone Press, 1941. 16 pp, 48 plates, frontispiece in color, quarto.

This picture book, one of the series, Greystone Panorama Books, edited by the author, Dr. Paul Zucker, is a tribute to the genius of American engineers. After a brief, non-technical introduction, plates tell the dramatic story of river and ravine conquered to bind together the American nation, and the harnessing of hydraulic energy for industrial and agricultural production. It is a phase of our culture which has needed emphasis overlong.

The presentation of bridges is by type--masonry, timber, steel, lintel, arched, and suspended--and the examples are well chosen. Dams are represented by recent T.V.A. and western projects.

While no attempt is made to deal historically with the limited material, except to illustrate two Roman and two medieval urban bridges, many readers will wish that a few examples could have been included to indicate the audacity and competence of nineteenth century American builders. There comes to mind the first Hudson River bridge, built 1804 by Theodore Burr to link Lansingburgh (Troy) and Waterford, 671 ft. long with four timber arches. Burr's famous wooden suspension bridge across the Mohawk at Schenectady, 1808, is another. The thirteen-arched Schoharie Creek aqueduct at Ft. Hunter, New York, 1841, still proves the superb beauty of Erie Canal masonry. One misses the Carrollton Viaduct, south of Baltimore, which even today carries the main B. & O. right-of-way; the Harrisburg Viaduct of the Pennsylvania Railroad; and Wernwag's 340-ft. timber span across the Schuylkill, 1812. Nor are early American dams to be disregarded; for example, the splendid granite structure impounding the Merrimac at Lawrence, Massachusetts.

These monuments to American technique are not listed to disparage the excellent little volume here reviewed, but to emphasize the fact that the structures selected for it partake of a rich tradition of achievement practically unknown even to contemporary engineers and well deserving of rediscovery and sympathetic exposition.

Turpin C. Bannister

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HISTORIC AMERICAN BUILDING SURVEY, CATALOGUE of the Measured Drawings and Photographs of the Survey in the Library of Congress, March 1, 1941. Washington: U. S. Dept. of Interior, National Park Service, 1941, pp. viii, 470. illus. octavo.

One of the happiest results of the recent, unlamented economic depression was the Historic American Building Survey inaugurated in November, 1933, to provide relief for unemployed architects and draftsmen. Formerly the conservation and recording of significant architectural monuments had been left to the well-intentioned but arbitrary and often untrained custody of individuals or semipublic agencies.

As of March 31, 1941, seven years of the Survey have deposited in the Library of Congress 23,765 sheets of measured drawings of 2693 structures, and 25,357 photographic negatives of these and 3,696 other structures, or a total of 49,122 documents dealing with 6,389 monuments. The drawings are of the highest order of draftsmanship and a good proportion of the photographs are competently executed. The selection of monuments to be recorded was made from lists prepared by district officers and local advisers, and preference was given those buildings not already in custody of responsible agencies and those in danger of destruction.

The material thus assembled forms a treasure trove for the student of architecture and social history. It provides a vast cache of documents that in emergency--all too imminent today--will certainly prove priceless. It is not too much to claim that the Survey was the most important step yet taken in the study of American architecture.

There are still certain deficiencies in the scope of the Survey, as those in charge readily acknowledge. All documents are descriptive of the buildings' present condition. Few attempts were made to differentiate separate compaigns of work or to study seriously collateral historical evidence, and few, if any, to supplement description with reconstruction. This is a phase with which architectural historians of the future must cope. It is inevitable that to the specialist or partisan of each district or period will feel his bailiwick inadequately represented. The coverage of New York State, for example, is extremely spotty, both geographically and chronologically. In using the survey material, too, the historian must remember that it includes only those monuments which happen to have survived and to have been selected. In other words, there is little assurance, as yet, that one consults a typical cross section.

The present amplified catalogue is very welcome. It lists almost three times as many items as its predecessor. Indications of type, material, period, architect and date of survey have been added

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American Local History, Marian Wiltse, NY State Lib
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Scheme of Classification:

Bibliography
Periodicals
General: general histories, essays, exhibitions, views
Biography
Geographical: continents, countries, regions, towns, buildings
Chronological: period, century, year
Building Types: agricultural, commercial, residential, etc.
Structural: materials, structural systems, details, equipment
Aesthetic: organization patterns, details, ornament, decor.arts
Professional: arch.education, professional administration, econ.
Preservationism: damaged monuments, preservation, reconstruction
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65 __, __; The weathervane on Christ Church, Boston. by Mrs. Samuel G. Babcock. il (Old Time NE v 32 p 63-65 O '41)

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R 2 Antioch on-the-Orontes,III; the excavations, 1937-39. R.Stillwell, ed. (Amer J Archaeol v 45 p 644-46 O'41) F.E.Brown

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R 6 Eric Mendelsohn, by A. Whittick (Arch For v 75 sup 22+ N'41) (Art digest v 16 p 25 D'41)

R 7 Der Geist der Baukunst (Kunst v 84 p 164 Ap'41) E.Eckstein

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R 10 Die Landmauer von Konstantinopel. by F. Krischen. vol. 1 (J Rom Stud v 31 p 203 '41) I.A.Richmond

R 11 Medieval monuments at the Cloisters, as they were and as they are, by J.J.Rorimer. il (Mag of art v 34 p 532-3 D'41) C. Seymour (Pencil P v 22 sup 66 N'41) D.M.Game

R 12 La necropoli del porto de Roma nell'Isola Sacra (J Rom Stud v 31 p 207-9'41) J.M.C.Toynbee

R 13 Richard Norman Shaw, architect, 1831-1912; a study of his work, influence, pupils (Connoisser v 108 p 225 D'41) H.G.Fell

R 14 Roman legionary fortress at Caerleon. by V.E.Nash-Williams (J Rom Stud v 31 p 215 '41) I.A.Richmond

R 15 Selected writings on architecture, 1894-1940,by F.L.Wright (Gutheim,ed) (Pencil P v 22 sup 66 N'41) (Liturg Arts v 9 p 83 Ag'41)

R 16 South in Architecture, by L. Mumford (Arch Rec v 90 p 26 S'41) E. Coit. (Art Digest v 16 p 27 O'41) F.Caspers (Liturg Arts v 10 p 26 N'41)

R 17 Space, time and architecture, by S. Giedion (Landscape Arch v 31 p 218-19 J1'14) T. Hamlin (Art News v 40 p 36 N 15 '41) J. A. Hartwell (Connoisseur v 108 p 220 D'41) (Task v 1 no 2 p 37-8 '41) H.S.Howard, Jr. Reply by S.Giedion

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R 19 Temple of Hibis in El Khargeh oasis, by H. E. Winlock and others. part 1. (Met Mus Bul v 37 p 44-5 F'42)

R 20 Town and Country planning, by G. McAllister (Arch Rev v 90 p 126 O'41) E. Goldfinger

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"The ASAH has expanded in a year to the astronomical figure of 100 members, and the present preservation number--whatever gigantic feats a larger membership may in time achieve--must remain a monument to the thought and ingenuity of that valiant century. In addition to a summary of the evolution of preservationism, reports on the first regional groups established and plans for founding others, and a statement of hard facts on practical problems involved, there is a selected bibliography on preservation in general and by region, while the current bibliography, a feature of the first two numbers of the Journal, is continued."

(editorial comment in the Architectural Record, March, 1942.)

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(Book review, HISTORIC AMERICAN BUILDING SURVEY, continued from page 42)

wherever possible. The index has been expanded to provide useful cross references of building types, architects, etc. The variety of typical drawings and photographs illustrated cannot fail to intrigue even the casual reader. The catalogue is bound to increase the appreciation and availability of this great historical archive.

Turpin C. Bannister

N E X T S T E P S IV

A S A H

Preceding the annual convention of the American Institute of Architects at Detroit, there will be meetings of the Association of Collegiate Schools of Architecture and the Association for the Advancement of Architectural Education.

Inaugurating a series of forums on phases of architectural education, the Association of Collegiate Schools has invited ASAH to organize a symposium on "The Function of Architectural History in the Modern Professional Curriculum," to be held 2 P.M., Sunday, June 21, at the Hotel Statler. ASAH accepts with pleasure. The program for the meeting includes the following talks:

"Contributions of Architectural History to the Development of the Modern Student Architect." Speaker: Turpin C. Bannister, Rensselaer Polytechnic Institute.

"The Teacher of Architectural History: his Background, Training and Technique." Speaker: Carroll L.V. Meeks, Yale University.

"Important Architecture Histories yet Unwritten." Paper by Talbot F. Hamlin, Columbia University.

"Some Problems in the Interpretation of Modern Architecture." Speaker: Henry-Russell Hitchcock, Wesleyan University.

Dean Welles Bennett assures all members of ASAH a cordial welcome to attend the meeting and participate in the subsequent discussion.

The Association for the Advancement of Architectural Education has requested the president of ASAH to give a brief summary of the development, aims and activities of ASAH at their meeting on Sunday evening, June 21. We welcome this opportunity to tell our story, which seems to us an indication of the rich fruits that reward co-operation.

1 9 4 2 S U M M E R M E E T I N G

Members who plan to attend the coming Summer Session at Harvard University should watch Miss Cook's bulletin board for notice of the first assembly of the 1942 Summer Meeting. The emergency of war will no doubt reduce our numbers from the multitude of last summer, but those who do return can count on renewing old acquaintances and talking shop to their hearts' content.

The speed-up program undertaken by Harvard College presents an unusual opportunity by augmenting the usual summer curriculum in architecture and fine arts with regular winter and spring term courses. For the

record, we note courses of interest to ASAH members:

Ancient Arch (Egypt, Greece, Rome)	Dean Hudnut
Medieval Arch. (IV to XV Cent.)	Dean Hudnut
Workshop for teachers of Art	Sullivan
Interpretation of Selected Works of Art	Koehler
Ancient Art (2nd term)	Hanfmann
Italian Renaissance Art	Opdycke
Modern Art	Sachs, Deknatel
Introduction to Chinese & Japanese Art	Warner
Medieval Italian Painting	Rowland
Camouflage	Judkins
Flemish Painting of XV Cent.(2nd term)	Kuhn
Rubens and Rembrandt	Rosenberg
American Architecture	Conant
Housing Policy in War and Reconstruction Periods	Ford
Research in Architecture & Architectural History	Conant, faculty.

J O U R N A L

The raw materials of architectural journalism seem assured for the immediate future. For the second number of volume 2, we plan to devote a special issue on Architectural History in Architectural Education, including the ASAH papers delivered at Detroit.

The JOURNAL continues to welcome interesting, informative articles, news items, notices, etc. The Editor cannot be responsible for loss, but every effort will be made for the safety of manuscripts. Off prints will be supplied.